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THESIS

**NATO TRANSFORMATION: PROSPECTS FOR AND
CONSTRAINTS ON BRIDGING THE CAPABILITY GAP**

by

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June 2005

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BRIDGING THE CAPABILITY GAP**

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ABSTRACT

The thesis analyzes the capability transformation process of NATO to measure the progress made by the European NATO member states in narrowing the capability gap between the United States and European forces. Since the end of the Cold War, the capability gap among the NATO members has become a major concern because it hinders NATO's operational ability. Operation Allied Force and new strategic and operational challenges of the 21st century have driven NATO's capability transformation process. The thesis analyzes NATO military capabilities exhibited in Operation Allied Force by analyzing the individual national contributions of the Allies to highlight the imbalance in the capabilities of the Alliance. The thesis then examines the capability transformation process regarding the commitments made by the Allies at the Washington, Prague and Istanbul Summits to reinforce capabilities for modern warfare in high threat environments and narrow the growing capability gap. It focuses on the decisions and achievements of each summit to measure the progress made by the European NATO member states in bridging the capabilities gap between the United States and European forces. To do this, it analyzes military expenditures, defense capabilities, national regulations and strategies that slowed down or reinforced the capability transformation process. The conclusion is that, despite encouraging trends in the capability transformation process, the balance in the military capabilities continues to favor the United States by a wide margin.

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LIST OF ACRONYMS

ACE:	Allied Command Europe
ACLANT:	Allied Command Atlantic
ACTORD:	Activation Order
ACTWARN:	Activation Warnings
ACO:	Allied Command Operation
ACT:	Allied Command Transformation
ALTBMD:	Active Layered Theatre Ballistic Missile Defense
AGS:	Air to Ground Surveillance
ATO:	Air Task Order
AWACS:	Airborne Warning and Control System
CALCM:	Conventional Air Launched Cruise Missile
CAOC:	Combined Air Operation Center
CAP:	Combat Air Patrol
CBRN:	Chemical, Biological, Radiological, and Nuclear
CJTF:	Combined Joint Task Force
CNAD:	Conference of National Armament Directors
C4:	Command, Control, Communications, and Computers
DCI:	Defense Capabilities Initiative
DP:	Defense Planning
DTSI:	Defense Trade Security Initiative
EAC:	European Airlift Command
ECAP:	European Capability Action Plan
EDA:	European Defense Agency
EU:	European Union
FCRT:	Future Capabilities Research and Technology
GBU:	Guided Bomb Units
GDP:	Gross Domestic Product
HARM:	High-Speed Anti Radiation Missile
HLSG:	High Level Steering Group

ISR:	Intelligence, Surveillance and Reconnaissance
ISTAR:	Intelligence, Surveillance, Target Acquisition and Reconnaissance
JDAM:	Joint Direct Attack Munitions
JALLC:	Joint Analysis Lessons Learned Center
JEEA:	Joint Experimentation, Exercises and Assessment
JET:	Joint Education and Training
JFCOM:	Joint Force Command
JFCC:	Joint Force Component Command
JFTC:	Joint Force Training Center
JSTAR:	Joint Surveillance and Targeting Attack Radar System
JWC:	Joint Warfare Center
KFOR:	Kosovo Force
LoI:	Letter of Intent
MD:	Missile Defense
MEADS:	Medium Extended Air Defense System
MJLC:	Multinational Joint Logistics Center
NATO:	North Atlantic Treaty Organization
NAC:	North Atlantic Council
NC3A:	NATO Consultation, Command and Control Agency
NRF:	NATO Response Force
LANTIRN:	Low Altitude Navigation and Targeting Infrared at Night
LOCE:	Linked Operational Center Europe
OSCE:	Organization for Security and Cooperation in Europe
PCC:	Prague Capability Commitments
PGM:	Precision Guided Munitions
R&D:	Research and Development
ROE:	Rules of Engagement
RRF:	Rapid Reaction Force
SACEUR:	Supreme Allied Commander Europe
SAM:	Surface to Air Missile

SCPI:	Strategic Concepts, Policy, and Interoperability
SEAD:	Suppression of Enemy Air Defense
SPIRNET:	Secret Internet Protocol Network
TLAM:	Tomahawk Land Attack Missile
TMD:	Theater Missile Defense
UAV:	Unmanned Aerial Vehicle

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The thesis is dedicated to my wife, who is my pride and joy, my life.

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I. INTRODUCTION

During the Cold War, NATO developed its military capability to protect against a potential massive attack from the East. The European Allies built up their force structure in order to meet with threats at their doorsteps. Their force structure included heavy armies and short-range air assets because there was no reason to project European forces over great distances for possible NATO operations. On the other hand, the United States developed its force structure to project at great distances. Therefore, the United States produced expeditionary forces to support the European Allies on the front line against a potential attack from the East. The United States made considerable investments and developed technological military assets in order to deploy large forces over great distances, as well as to sustain them for prolonged operations in the field. Over the years, the capability gap between the European Allies and the United States has grown gradually and has become more significant. The end of the Cold War devalued the capabilities of the European Allies while the United States possessed the trans-oceanic power projection capability to meet risks and challenges of the new security environment. New threats on the periphery and far from NATO's traditional borders required capabilities different from the ones needed during the Cold War. The new security agenda of NATO includes peacekeeping and crisis management operations, and requires a force structure that provides deployability, sustainability, effective engagement and high-tech information systems.

As a result of the humanitarian disaster in Kosovo, NATO carried out its most intense combat operation as a peacekeeping and crisis management mission. Operation Allied Force was significant in the history of NATO because it marked the institutional change of NATO from a defensive-minded organization to one that could engage in out-of-area operations. NATO commenced offensive air strike operations against the Federal Republic of Yugoslavia in March 1999. Later, however, there was a growing concern about the capabilities gap exhibited by Operation Allied Force between the United States and its European Allies, and consequently the effectiveness of NATO as an Alliance. Many questioned the ability and resolve of the European Allies to maintain and

contribute to the operational ability of NATO to counter the challenges of the 21st century.

NATO approved the Alliance's New Strategic Concept at the Washington Summit in April 1999. The New Strategic Concept focused on risks and challenges of the new security environment. NATO agreed to a demanding agenda to meet future security challenges such as instability and regional crises, the global spread of military technology, and the proliferation of nuclear, biological, and chemical weapons. The new Strategic Concept also set guidelines for the transformation of NATO military forces in order to perform the full range of necessary missions. Alongside the security objectives, the NATO Heads of State and Government launched the Defense Capabilities Initiative to strengthen the military capabilities of the Allies and narrow the capability gap.

After the dramatic terrorist attacks on 11 September 2001, NATO's threat assessment fundamentally changed, especially were obliged the European Allies to adapt to challenges of asymmetric warfare. At the Prague Summit in November 2002, the Allies embarked on a new initiative known as Prague Capability Commitments, which aimed to achieve further capability improvements and equip the Alliance with key capabilities. Following the Prague Summit, the Allies gave further shape and direction to the capability transformation process at the Istanbul Summit in June 2004.

The purpose of this thesis is to review NATO's capability transformation process, to measure the progress made by the European member states in narrowing the transatlantic capabilities gap, and to evaluate prospects for and constraints on the capability transformation. This topic is important because, since the end of the cold war, the capability gap between the United States and European Allies has become a major concern that continues to hinder NATO's ability to meet the challenges of the 21st century.

The thesis is based on primary and secondary sources. The primary sources include NATO concepts, treaties and agreements, meeting records, and speeches or declarations by NATO officials on the capabilities gap and related issues. The secondary sources include books, scholarly articles and newspaper articles by political-military analysts, and other publications.

The thesis comprises of five chapters including this introduction, and a concluding chapter. Chapter II offers an overview of NATO's decision to intervene in Kosovo. It then examines NATO military capabilities in Operation Allied Force by recounting the national contributions of the Allies. It summarizes the overall evaluation of the campaign at the strategic, operational, and tactical levels to support the analysis in subsequent chapters. In this context, it sketches the military gap between the European Allies and the United States and concludes by highlighting the origins of and prospects for closing the capability gap.

Chapter III begins with explanation of NATO's New Strategic Concept in order to present the Alliance's new and more demanding security agenda. The chapter then reviews the commitments made by the Allies at the Washington, Prague and Istanbul Summits to reinforce capabilities for modern warfare in high threat environments and narrow the growing capability gap. It then measures the progress made by the European NATO member states in bridging the capabilities gap between the United States and European forces.

Chapter IV analyzes the prospects for and constraints on the capability transformation process and considers the interaction of NATO's capability transformation process with the European capability action plan. The chapter examines the main factors that have slowed down or reinforced the Alliance's capability transformation process: military expenditures, defense industries, national regulations, and national strategies.

Chapter V concludes the thesis by drawing out the implications of the efforts by the European Allies to close the capabilities gap for NATO's future operational effectiveness.

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II. THE CAPABILITIES GAP REVEALED: OPERATION ALLIED FORCE

Following the creation of NATO, the major focus of the Allies was on potential aggression from the Warsaw Pact. However, as a result of the end of the cold war, NATO has changed the center of attention to peacekeeping and crisis management operations beyond the member countries' territory.¹ Operation Allied Force marked NATO's shift from a defensive-minded organization to one that could engage in out-of-area operations. It also revealed that NATO's European Allies lacked the ability to mount large-scale offensive operations when challenged beyond the members' borders.²

This chapter begins with an overview of NATO's decision to intervene in Kosovo, the second major military campaign in NATO's history. Fourteen of NATO's 19 members participated in Operation Allied Force. Once Operation Allied Force was completed, the Allies drew important lessons about the shortcomings in the Alliance's military capabilities. The chapter presents the military gap between the European Allies and the United States while considering the national military contributions to Operation Allied Force. It concludes by highlighting the origins of and prospects for the capability gap.

A. NATO MILITARY INTERVENTION IN KOSOVO

1. Background to the Conflict in Kosovo

In 1989, President Slobodan Milosevic of Yugoslavia revoked Kosovo's autonomy as a province of the Federal Republic of Yugoslavia and carried out policies that excluded Kosovo Albanians from important state responsibilities. In the early 1990s, the international community focused the potential dangers such as ethnic violence against Kosovo Albanians and warned Milosevic to engage in negotiations with them. However, Belgrade's government refused to negotiate. In addition, Milosevic blocked observer missions in Kosovo, which was suggested by the Conference on Security and Co-

¹ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 1, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

² John E. Peters, et al., *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 9.

operation in 1993 and the European Community Monitoring Mission in 1996. The worsening situation was recognized by the international organizations while Milosevic aimed to reduce involvement of the international community in Kosovo.³

Kosovo Albanians conducted non-violent policies against the Belgrade government under the leadership of Ibrahim Rugova, who was elected president of Kosovo in 1992. At the same time, the Kosovo Liberation Army was founded in 1993 and carried on a campaign of violence to attain independence. Violence and conflicts in the region escalated dramatically during this time. In 1998, Milosevic intensified its repressive violence against Kosovo Albanians. Therefore, NATO emphasized concerns about the escalating tension in Kosovo and decided to take action on the diplomatic and military fronts. NATO had declared its plans to perform military exercises in Macedonia to send a warning to the Belgrade government to end ethnic violence as well as its readiness to send troops to Kosovo to reduce the violence in the region.⁴ The humanitarian crisis in Kosovo increased as a result of the policies imposed by the Yugoslav/Serbian security forces. There were widespread displacements and an estimated 250,000 Albanians had left their homes and some 50,000 were already staying in the open.⁵

2. NATO's Military Options

NATO began to plan possible military operations for Kosovo in May and June 1998, after the North Atlantic Council (NAC) directed NATO's planners to prepare a wide range of alternative operations. As a result, ten possible options were generated for the preventive deployments, with several options including the more explicit use of force containing an air campaign and ground invasion. However, the invasion of Kosovo would require more troops than the Allies had committed and plans turned to preparing an air campaign and a post-conflict peacekeeping force.⁶ In September 1998, The U.N. Security

³ U.K., Ministry of Defense, *Kosovo: Lessons from the Crisis*, 2000, <http://www.kosovo.mod.uk/lessons/chapter2.htm> (accessed October 4, 2004).

⁴ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 2, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

⁵ U.K., Ministry of Defense, *Kosovo: Lessons from the Crisis*, 2000, <http://www.kosovo.mod.uk/lessons/chapter2.htm> (accessed October 4, 2004).

⁶ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), pp. 11-12.

Council adopted Resolution 1199, which called for a ceasefire in Kosovo. The defense ministers of NATO confirmed their determination to take a military action should it become necessary and they agreed on operational planning and build up of forces to conduct operations.⁷ As a result of these agreements, NATO ministers issued Activation Warnings (ACTWARNs), which authorized NATO military commanders to designate the forces for limited air strikes and a phased air campaign. On October 13, NATO stated that the air operations could be initiated by issuing Activation Orders (ACTORDs) that authorized NATO commanders to organize for the execution of the air campaign.⁸

The possibility of NATO military action compelled Milosevic to comply with the requirements of UNSCR 1199, which called for the NATO aerial verification mission and the deployment of unarmed international observers from OSCE into Kosovo. In addition, Milosevic agreed to reduce the number of the security forces in Kosovo and to initiate a dialogue with Kosovo about an autonomous regime for the province. NATO seemed satisfied with the initial terms of this agreement but did not cancel the ACTORDs that authorized offensive operations.⁹

Despite the initial agreements and assurances, the situation in Kosovo never stabilized, and ethnic cleansing by Yugoslav/Serbian forces and violence by both sides continued. On 28 January 1999, NATO issued a solemn warning for all sides to accelerate and adapt the requirements of the diplomatic front and to halt the violence.¹⁰ In addition, the NAC authorized to NATO Secretary General Javier Solana to approve air strikes under his discretion against targets over the region of the Federal Republic of Yugoslavia. The transfer of authority from a committee of nineteen to a single person

⁷ U.K., Ministry of Defense, *Kosovo: Lessons from the Crisis*, 2000, <http://www.kosovo.mod.uk/lessons/chapter2.htm> (accessed October 4, 2004).

⁸ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), pp. 11-12.

⁹ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 1, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

¹⁰ U.K., Ministry of Defense, *Kosovo: Lessons from the Crisis*, 2000, <http://www.kosovo.mod.uk/lessons/chapter2.htm> (accessed October 4, 2004).

was meant to represent NATO's determination and increase the pressure for a diplomatic solution.¹¹

In February 1999, the political and military leaders of Yugoslav/Serbian and Kosovo Albanians were invited to the peace conference at Rambouillet in France. NATO's operation threat was an incentive to reach a peace agreement between the parties and remained during the talks at Rambouillet. The Rambouillet Accords called for a cessation of hostilities, redeployment, and demilitarization of all forces in Kosovo. In addition, it suggested civil structures, elections, humanitarian assistance for refugees, and economic reconstruction in the region. Furthermore, it would preserve the territorial integrity of Yugoslavia and protect the rights of all sides because it included provisions for minority rights. Kosovo Albanians accepted the requirements of accords and signed the proposed agreement, however the Belgrade government did not accept the agreement, objecting to various provisions, most notably elections that might potentially give Kosovo independence. Thus, NATO renewed its determination to conduct air operations against Yugoslavia in March 1999. The aim was to force Milosevic to accept the Rambouillet Accords. However, the talks on the agreement were almost suspended between the parties.¹²

3. Operation Allied Force

Despite international and NATO pressure, Milosevic continued to intensify ethnic cleansing to drive the ethnic Albanian population from Kosovo to neighboring countries.¹³ In March, the OSCE Kosovo Verification Mission, whose operations were already hampered by the Yugoslav government, announced its withdrawal from

¹¹ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 15.

¹² Center for Law and Military Operations, *Law and Military Operations in Kosovo: 1999-2001 - Lessons Learned for Judge Advocates* (Virginia: The Judge Advocate General's School, December 15, 2001), p.44, <https://www.jagcnet.army.mil/JAGCNETInternet/Homepages/AC/CLAMO-Public.nsf/0/e8f443ceaed1c96585256b5f007911b6?OpenDocument> (accessed September 20, 2004), See also U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 2, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

¹³ Paul E. Gallis, *Kosovo: Lessons Learned from Operation Allied Force* (Washington, D.C.: Congressional Research Service, Library of Congress, November 19, 1999), p. 2, <http://www.globalsecurity.org/military/library/report/crs/RL30374.pdf> (accessed September 28, 2004).

Kosovo.¹⁴ The international community initiated one last diplomatic effort on 22 March where U.S. Ambassador Richard Holbrooke aimed to convince Belgrade to stop repression and ethnic cleansing against Kosovo Albanians to avoid military intervention of NATO. However, the Belgrade government remained uncompromising with the 19 NATO democracies. Time for a diplomatic solution had run out for NATO and the military operation was now the only way to stop a humanitarian catastrophe in the region¹⁵

The NAC authorized Secretary General Solana to conduct air operations in the context of consultations with the allies. Thereupon, Solana directed SACEUR to launch air operations against the Federal Republic of Yugoslavia until NATO's conditions for peace were met in Kosovo.¹⁶ On March 24 1999, NATO started Operation Allied Force, which lasted 78 days and involved air and missile strikes against enemy air defenses, Serb forces on the ground in Kosovo, and strategic targets in Serbia. Finally, the Serbian leaders decided to withdraw their forces from Kosovo and thousands of displaced people were able to return safely their homes. The NATO-led peace implementation force (KFOR) was authorized to deploy to the province under a U.N mandate. After the agreements between NATO and Yugoslav military leaders and the passage of U.N. Security Council Resolution 1244, NATO declared the objectives of Operation Allied Force had been met on June 10 1999.¹⁷

B. NATO MILITARY CAPABILITIES IN OPERATION ALLIED FORCE

Fourteen of NATO's 19 members participated in the air campaign, while five nations did not take part: the Czech Republic, Iceland, Luxembourg, and Poland due to

¹⁴ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 2, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

¹⁵ U.K., Ministry of Defense, *Kosovo: Lessons from the Crisis*, 2000, <http://www.kosovo.mod.uk/lessons/chapter2.htm> (accessed October 4, 2004).

¹⁶ Paul E. Gallis, *Kosovo: Lessons Learned from Operation Allied Force* (Washington, D.C.: Congressional Research Service, Library of Congress, November 19, 1999), p. 3, <http://www.globalsecurity.org/military/library/report/crs/RL30374.pdf> (accessed September 28, 2004).

¹⁷ The United Kingdom Parliament, House of Commons, *Fourteenth Report, Lessons of Kosovo*, Chapters I-III, October 24, 2000, <http://www.parliament.the-stationery-office.co.uk/pa/cm199900/cmselect/cmdfence/347/34702.htm> (accessed September 18, 2004).

the lack of relevant capabilities, and Greece for political reasons.¹⁸ However, all members officially supported the operations and their military infrastructure and capabilities made significant contributions to Operation Allied Force. Some made contributions by opening their airspaces, providing bases and required facilities during the operations, and some deployed their ground forces for humanitarian relief missions and the stabilization of the region. Despite the success of the campaign, Operation Allied Force revealed significant capability gaps between the United States and European members that must be considered to maintain the operational ability of the NATO as an effective alliance against the challenges of the 21st century.¹⁹

1. Air Operations

NATO carried out 38,004 combat sorties with the contribution of 14 countries' military aircraft against Yugoslav air defense. More than 29,000 sorties were flown by the United States during Operation Allied Force. 1,055 aircraft were deployed to execute the air missions with more than 700 aircraft presented by the United States. The operational capabilities of the United States and European Air Forces revealed significant constraints and capability gaps. Besides the number of sorties flown, the quality of the assets was remarkable during the air operations. Rules of Engagement (ROE), all-weather and night capabilities limited most of the European Allies to carry out air operations.²⁰

a. Strike Operations and Precision Guided Munitions (PGMs)

There were several restrictions while carrying out strike operations that increased the importance of precision-guided weapons during the 78-day campaign. Collateral damage became an issue and some of the European Allies refused to attack targets that might cause civilian casualties. The reason was that there were "strong aversion to casualties on either side of the conflict, and concerns over domestic public

¹⁸ David S. Yost, "The U.S.-European Capabilities Gap and the Prospect for ESDP," in *Defending Europe: The EU, NATO and The Quest for European Autonomy*, ed. Jolyon Howorth and John T.S. Keeler (New York: Palgrave Macmillan division of St. Martin's Press, 2003), p.88.

¹⁹ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 25, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

²⁰ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 23, 24, 35.

reactions.”²¹ The strike operations often carried out in difficult weather, required accurate weapons to overcome Allies’ concerns. In a post-Kosovo assessment, a senior American official stressed the importance of precision capabilities:

It's in the political interest of the coalition to have all the allies militarily active. It's hard if [European allies] don't have the weapons in hand [during the NATO operations]. We saw a lot of requests for [Guided Bomb Units] GBUs, [Joint Direct Attack Munitions] JDAMs, Mavericks and [Low Altitude Navigation and Targeting Infrared at Night] Lantirn pods because our [European] allies realized the rules of engagement required precision.²²

Initially, a major consideration during Operation Allied Force was to preserve the unity of the Allies against Yugoslavia. Some of the European Allies already had public dissent against a military campaign and public reaction could intensify in the case of military casualties. Therefore, NATO military and political leaders preferred to minimize the risks of losing any aircraft or aircrew during the air campaign. The strikes by air were executed above a height of 15,000 feet, which reduced the risk from Yugoslav air-defense fire. As a result, only two allied aircraft were lost in nearly 10,000 bombing missions.²³ As the air operation continued, NATO was required to shift strike operations from fixed targets to mobile targets, which increased the risk of killing the innocents or producing other unintentional damage. Thus, the air operations required more accurate strikes to limit collateral damage.²⁴ Finally, bad weather conditions hampered air operations and affected the target acquisition and identification. In addition, it increased the collateral damage concerns of the Allies. Allied Air Forces conducted strike operations in favorable weather for 24 of the 78 days, but the rest of the campaign faced

²¹ Paul E. Gallis, *Kosovo: Lessons Learned from Operation Allied Force*, (Washington, D.C.: Congressional Research Service, Library of Congress, November 19, 1999), p. 4, <http://www.globalsecurity.org/military/library/report/crs/RL30374.pdf> (accessed September 28, 2004).

²² David A. Fulghum and Robert Wall, “Weapons, Intelligence Targeted in Probe,” *Aviation Week and Space Technology*, Volume 151, Issue 4, July 26, 1999, p.69, <http://proquest.umi.com/pqdweb?index=54&did=000000047032178&SrchMode=1&sid=1&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1098780583&clientId=11969> (accessed September 15, 2004).

²³ The International Institute for Strategic Studies, “Lessons from Kosovo: Military Operational Capabilities,” in *Military Balance 1999-2000* (London: Oxford University Press, 1999), p. 289.

²⁴ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), pp. 33-34.

extensive cloud cover over the target area, which impeded air strikes given the lack of European all-weather capabilities.²⁵

Operation Allied Force revealed that the European Allies suffered from severe shortages of precision munitions. The United States was the only country that had air-launched all-weather precision weapons and conducted air strike operations in adverse weather conditions.²⁶ Air strike operations pointed out significant shortfalls of the European Allies, as only the French and the British had the capability of delivering PGMs. Both Allies possessed and employed the Paveway II and III laser-guided bombs, however the lack of all-weather munitions capabilities limited their contributions throughout the campaign.²⁷ British PGMs used guidance systems such as laser, television or infrared that dictated a line-of-sight to employ the weapon. In case of adverse weather conditions, the aircraft could easily lose contact either with the target or with the weapon after launch. The United States had the largest number of precision-guided and all-weather munitions that delivered over 80 percent of the munitions during the Operation Allied Force. The guidance system of these munitions was not affected by adverse weather conditions because it used inertial navigation systems and global positioning systems. Therefore, the United States dominated strike operations throughout the air campaign in comparison to the European capabilities.²⁸

b. Cruise Missiles

Cruise missiles were used extensively during the air campaign and proved their efficiency and accuracy in periods of adverse weather. NATO preferred to use cruise missiles for targets with a potential for high collateral damage and to reduce the risks of both aircraft and aircrew. Sea-launched and air-launched missiles were the Tomahawk Land Attack Missile (TLAM) and the Conventional Air Launched Cruise

²⁵ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 60, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

²⁶ James E. Thomas, *The Military Challenges of Transatlantic Coalitions* (London: The International Institute for Strategic Studies, 1999), p.54, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

²⁷ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), pp. 20-23.

²⁸ The International Institute for Strategic Studies, "Lessons from Kosovo: Military Operational Capabilities," in *Military Balance 1999-2000* (London: Oxford University Press, 1999), p. 289.

Missile (CALCM), long-range missiles used for accurate attacks on strategic targets in Yugoslavia. Only the U.S. B-52s delivered the CALCMs, and two U.S. Navy battle groups along with one British submarine fired the 218 Tomahawk missiles for quick reaction strikes.²⁹ The British were the sole European ally that had the capability to fire cruise missiles. The U.K. possessed 20 of the 218 TLAMs launched during the air campaign, while the rest of the missiles were launched by the United States.³⁰ Operation Allied Force revealed the capability deficiencies of the European members in the area of long-range cruise missiles. Such long-range weapon capabilities would be essential for NATO when confronting adversaries with sophisticated air-defense systems. In addition, restrictive ROE would increase the importance of these kinds of missiles as it did in Operation Allied Force. European members, except the British, had to rely on U.S. cruise missiles during the air campaigns. Therefore, this is an area that needs significant improvements for NATO European members.³¹

2. Intelligence, Surveillance and Reconnaissance (ISR)

During the air campaign, the United States dominated the area of intelligence collection with its extensive ISR resources such as reconnaissance satellites, U-2 platforms, RC-135 Rivet Joint Electronic Intelligence Aircraft, Joint Surveillance and Target Attack Radar System (JSTAR) and unmanned air vehicles (UAVs). The United States ISR network provided 90 percent precision targeting information, force protection, situational awareness and battle damage assessment for the European Allies, whose was limited in both manned and unmanned airborne platforms.³²

The NATO intelligence processes in Operation Allied Force included imagery, human and signal intelligence to carry out target system analysis for the air operations. Collateral damage risk and mobile targets increased the significance of precision target

²⁹ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, pp. 91-92, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

³⁰ The International Institute for Strategic Studies, "Lessons from Kosovo: Military Operational Capabilities," in *Military Balance 1999-2000* (London: Oxford University Press, 1999), p. 289.

³¹ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 63.

³² James R. Everett, *NATO's New Strategic Concept, Kosovo and the Implications for the Intelligence* (Carlisle Barracks, Pennsylvania: U.S. Army War College), pp.13-14, <http://handle.dtic.mil/100.2/ADA377485> (accessed September 18, 2004).

intelligence. Unfortunately, the European Allies lacked sufficient technical capabilities to make contributions to the targeting process. Therefore, the sophisticated target information given to the European Air Forces was supplied by the U.S. Joint Analysis Center. Moreover, the European Allies did not have the precise operational intelligence capability to operate in the constrained strategic environment. Furthermore, the European Allies could provide only post-mission, in-flight cockpit reports, and manned-photo reconnaissance for the battle damage assessment. Thanks to data collected with ISR assets, the most of the battle damage assessment intelligence was supplied by the United States. The U.S. Joint Analysis Center released the only official battle damage assessment reports to evaluate the progress of the air campaign in reaching objectives and to build the next day's Air Task Order. In addition, military satellite high-technology ISR assets were also used in Kosovo to support intelligence processes and to monitor refugees throughout the region.³³ Nevertheless, the United States had considerable dominance since it possessed 50 military satellites whereas the European Allies had only one satellite.³⁴

At the operational level, UAV systems contributed greatly to the success of Operation Allied Force by gathering information for target acquisition. For the first time, UAVs were used extensively in the military campaign for surveillance, reconnaissance and real-time targeting. They provided timely information to assess the situation on the significant areas for the strike and other operations. The contribution of the UAVs to Operation Allied Force indicates that they will play a prominent role in future NATO campaigns.³⁵

Germany and France were the only European members that deployed CL-289 reconnaissance drones in Kosovo. However, the technical capabilities of the CL-239s made limited contribution to the surveillance and reconnaissance missions, because the

³³ James R. Everett, *NATO's New Strategic Concept, Kosovo and the Implications for the Intelligence* (Carlisle Barracks, Pennsylvania: U.S. Army War College), pp.10-14, <http://handle.dtic.mil/100.2/ADA377485> (accessed September 18, 2004).

³⁴ Francois Heisbourg, *Emerging European Power Projection Capabilities*, Geneva Center for Security Policy, July 15-16, 1999, http://www.gcsp.ch/e/meetings/Research_Seminars/RAND/1999/ (accessed September 18, 2004).

³⁵ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 56, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

CL-239s could only fly for 30 minutes at the 600 meters.³⁶ European UAVs and drones executed 37 percent of all unmanned missions but supplied less than 10 percent of the reconnaissance and surveillance mission hours because of their limited endurance. In addition, the European UAVs could not perform lengthy reconnaissance and surveillance missions.³⁷

The United States deployed the Predator and Hunter UAVs, and two JSTAR which were used effectively during Operation Allied Force.³⁸ The capability of the Predator was prominent in the operations since it could fly at 7,600 meters for up to 24 hours. In addition, Predator could provide images despite cloud cover and had the integrated data link ability to work with both the ground station and JSTAR aircraft.³⁹

Reconnaissance and surveillance missions for flex targeting required more demanding capabilities than the European members had. Therefore, these operations were mostly conducted by the United States, which had the LANTIRN and JSTAR systems.⁴⁰ France provided Horizon helicopters that could operate in surveillance missions, but their technical capabilities could not be integrated with the Allies'. Operation Allied Force forced the European members to reassess the strategic importance of UAV systems for surveillance and reconnaissance missions.⁴¹ European members need to improve technical capabilities of their intelligence, reconnaissance and surveillance assets to conduct effective operations.

3. Electronic Warfare and Suppression of Enemy Air Defense (SEAD)

Electronic warfare assets played a significant role in strike operations, because NATO aircraft encountered severe Yugoslavian air-defense during Operation Allied

³⁶ The International Institute for Strategic Studies, "Lessons from Kosovo: Military Operational Capabilities," in *Military Balance 1999-2000* (London: Oxford University Press, 1999), p. 288.

³⁷ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 31.

³⁸ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, pp. 55-56, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

³⁹ The International Institute for Strategic Studies, "Lessons from Kosovo: Military Operational Capabilities," in *Military Balance 1999-2000* (London: Oxford University Press, 1999), p. 288.

⁴⁰ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 31.

⁴¹ James E. Thomas, *The Military Challenges of Transatlantic Coalitions* (London: The International Institute for Strategic Studies, 1999), p.52.

Force. NATO used several support assets, including the Tornado, EA-6, EC-130H electronic warfare aircraft, F-16CJ air-defense suppression aircraft and High-Speed Anti Radiation Missiles (HARMs) to ensure the safety of NATO strike aircraft. Thus, NATO maintained pressure on the Serbian air-defense systems during the missions while the strike aircraft effectively engaged enemy targets. The experience of Operation Allied Force revealed the importance of electronic warfare capabilities against the adversary air-defense systems for NATO's future military operations.⁴²

The United States was the only NATO member that carried out standoff and escort jamming missions in strike packages that provided secure environment for operations.⁴³ The United States provided more than 40 EA-6B Prowlers which were the only electronic attack aircraft in the battlefield. They were used for jamming the radars of the air defense missile systems to impede firing, tracking and attacking ability of the Surface to Air Missiles (SAMs). U.S. Navy officials stated that EA-6B Prowlers had to execute eight-hour sorties during the strike operations with air-to-air refueling support. They had to fly long sorties because after escorting in one strike operation, they had to break away from that strike package to connect to and escort other strike packages.⁴⁴

Germany and Italy, the European Allies that had the best SEAD capabilities, deployed a total of 14 Tornado electronic combat aircraft. Tornado aircraft had the ability to launch HARMs and advanced electronic countermeasures to open an air corridor for the strike aircraft. The HARM capability of the Tornados temporarily forced the Yugoslav air-defense radars to shut down so that strike operations were conducted safely. SEAD aircraft flew one-third of the sorties in the strike packages during the operation. German and Italian forces conducted only 8 percent of SEAD missions and 35 percent of the HARMs.⁴⁵

⁴² U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, pp. 65-71, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

⁴³ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 32.

⁴⁴ Greg Seigle, "Radar-Jamming Prowlers Played Big Role in the Balkans," *Jane's Defense Weekly*, Volume 32, Issue 1, (July 7, 1999), <http://home.datawest.net/dawog/vaq132/s19990707prowlers.htm> (accessed September 30, 2004).

⁴⁵ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), pp. 21-32.

Electronic warfare is one of the most significant areas in which European members continue to rely on the support of the United States. The U.S. EA-6B jamming capabilities are crucial for the NATO's military campaigns since the European members do not have comparable electronic warfare capabilities.⁴⁶ Following Operation Allied Force, NATO offered some force proposals to improve SEAD capabilities of the Allies. However, the Europeans have not decided to develop jamming systems and air-defense suppression efforts continue to rely on the U.S. assets.⁴⁷

4. Air-to-Air Refueling

Air-to-air refueling of aircraft was another challenging aspect of the operations in Kosovo. They supported combat and strike air forces while executing operations and aircraft en route to the operation area. The available airbases in the periphery of the operation area were not enough to support aircraft packages, which increased the importance of air-to-air refueling. In addition, escalation of the strike sorties and continuous Combat Air Patrol (CAP) missions required demanding aerial refueling support for the all aircraft committed to Operation Allied Force.⁴⁸

Adverse weather conditions meant that strike packages had to wait for breaks in the cloud cover to conduct operations over the target. Moreover, when tactics required attacks on mobile targets, pilots frequently called for additional time to locate and confirm their targets. Therefore, operational conditions in Kosovo also increased the spontaneous demand for tanker support. As a result, 21 percent of all the sorties were air refueling sorties.⁴⁹

The demand for the air-to-air refueling capability revealed the certain shortfalls of the European Allies in Kosovo, because only six of the Allies had developed in-flight

⁴⁶ David S. Yost, "The U.S.-European Capabilities Gap and the Prospect for ESDP," in *Defending Europe: The EU, NATO and The Quest for European Autonomy*, ed. Jolyon Howorth and John T.S. Keeler (New York: Palgrave Macmillan division of St. Martin's Press, 2003), pp. 90-91.

⁴⁷ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 64.

⁴⁸ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 33, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

⁴⁹ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 33.

refueling capabilities.⁵⁰ Among the European Allies, the British provided nearly 80 percent of the European assets with 9 aerial refueling tankers, with the rest of them being provided by Turkey, the Netherlands and France. However, European assets could not support their own forces in providing air-to-air refueling during operations.⁵¹ Therefore, the shortage of the aerial refueling tankers compelled the Allies to deploy most of the combat aircraft closer to the theater of war operations. Thus, the British moved their Tornados from Bruggen airbase in Germany to Solenzara airbase in Corsica. Deployment of the forces required additional resources, in particular, logistic support.⁵²

The United States deployed 173 aerial tankers, nearly 90 percent of NATO tanker forces, for Operation Allied Force. The U.S. tankers executed more than 5,000 air-refueling sorties. When it became obvious that the air campaign would continue over several weeks, NATO decided to increase its air forces, which required more tanker aircraft. In addition, political constraints like closed airspaces by some countries and long-range missions (some executed from Britain) also increased the significance of aerial refueling aircraft.⁵³ Despite the NATO request, only the United States increased the size of the tanker aircraft. The European Allies were unresponsive to the NATO requirements because their current inventory could not provide the additional requirements.⁵⁴

Operation Allied Force displayed the key role of aerial refueling capability as a force multiplier in carrying out prominent missions. NATO depended heavily on the U.S. tankers to sustain operations. If NATO is faced with the same challenges such as “strict ROE, narrow windows for strikes due to weather, and long flight distances and/or loiter

⁵⁰ U.S. General Accounting Office, *NATO Progress Toward More Mobile and Deployable Forces*, September, 1999, p.16, <http://www.gao.gov/archive/1999/ns99229.pdf> (accessed September 24, 2004).

⁵¹ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), pp. 23-33.

⁵² The International Institute for Strategic Studies, “Lessons from Kosovo: Military Operational Capabilities,” in *Military Balance 1999-2000* (London: Oxford University Press, 1999), pp. 289-290.

⁵³ Lt. General William J. Beggert, “Kosovo and Theater Air Mobility,” *Aerospace Power Journal*, no. 4, (Winter 1999), <http://www.airpower.au.af.mil/airchronicles/apj/apj99/win99/begert.htm> (accessed September 15, 2004).

⁵⁴ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 33.

time” in future military campaigns, that will increase pressure on Alliance aerial refueling capabilities.⁵⁵

5. Command, Control, Communications, and Computers (C4)

Operation Allied Force highlighted the significant role of C4 systems in supporting the flow of secure information among the Allies. Only a modern C4 structure can provide timely and adequate information for planning and executing operations. However, operations in Kosovo revealed the great disparity of C4 systems between the United States and the European Allies. General Klaus Naumann, Chairman of the NATO Military Committee before and during the Kosovo conflict, has stated that the technological and capability gap in C4 architecture between the United States and the rest of the Allies, which emerged as result of reduced investment in modern equipment, must be closed.⁵⁶

Most European aircraft were not equipped with the Have-Quick type of secure communication systems that provide encrypted communication among the Allies forces. The United States command and control aircraft had to pass information such as target coordinates or aircraft positions over non-encrypted radio channels. Therefore, Yugoslav forces could easily learn the Allied tactics or target information.⁵⁷ General John Jumper, the commander of the U.S. Air Force in Europe, indicated shortfalls of the communication capabilities after Operation Allied Force:

Our secure communications capabilities were insufficient and many of our transmissions were made "in the clear." As a result, sensitive information sometimes fell into enemy hands. Some aircraft also lacked jam-resistant radios and were unable to communicate with other airborne elements in the face of Serbian electronic warfare measures. In addition, several allied aircraft types were not equipped with the necessary Identification Friend or Foe (IFF) equipment that would have distinguished them from enemy

⁵⁵ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 33.

⁵⁶ James R. Everett, *NATO's New Strategic Concept, Kosovo and the Implications for the Intelligence*, (Carlisle Barracks, Pennsylvania: U.S. Army War College), p. 20, <http://handle.dtic.mil/100.2/ADA377485> (accessed September 18, 2004).

⁵⁷ Benjamin S. Lambert, *NATO's Air War for Kosovo: A Strategic and Operational Assessment* (Santa Monica: RAND Cooperation, 2001), pp. 166-167, <http://www.rand.org/publications/MR/MR1365/MR1365.ch8.pdf> (accessed September 28, 2004).

aircraft. This hampered the ability of battle managers to maintain an accurate, complete picture of air operations.⁵⁸

In addition, there were technological differences between the United States and most NATO Allies in the field of communications systems that caused inadequacies and deficiencies during the operations. European Allies used only old STU-2 secure communication equipment to share the classified information among units, while only the United States possessed the STU-3 secure communications systems. Therefore, NATO units had to pass hard copies of classified information by hand to share or process intelligence. As a result, the disparities between the technologies created command and control deficiencies in the quality of interoperability such as slow and insecure transfer of information between units.⁵⁹ Web-based and video-teleconference systems were also used extensively among the NATO members for command, control and planning process of operations. However, these equipment also presented some limitations because of the disparate information systems:

Again, common secure systems were lacking, and there were difficulties in transmitting a high volume of information within a restricted amount bandwidth. Peacetime procedures for managing the use of these new technologies in conflict were also inadequate. Difficulties emerged between the Allies in sharing bandwidth, linking disparate information systems, establishing common standards for network security and passing on time-sensitive intelligence.⁶⁰

At the operational level, the dissemination of the information among the Allies caused interoperability issues. The United States and the European Allies did not have an integrated data network for the transmission of information to their forces. The United States used Secret Internet Protocol Network (SPIRNET) and the European Allies used Linked Operational Center Europe (LOCE) to support the flow of tactical and operational

⁵⁸ General John P. Jumper, testimony before the House Military Readiness Subcommittee, *Operations in Kosovo*, October, 1999, <http://www.au.af.mil/au/awc/awcgate/congress/99-10-26jumper.htm> (accessed November 4, 2004).

⁵⁹ Benjamin S. Lambert, *NATO's Air War for Kosovo: A Strategic and Operational Assessment* (Santa Monica: RAND Cooperation, 2001), pp. 166-167, <http://www.rand.org/publications/MR/MR1365/MR1365.ch6.pdf> (accessed September 28, 2004).

⁶⁰ James E. Thomas, *The Military Challenges of Transatlantic Coalitions* (London: The International Institute for Strategic Studies, 1999), p.54.

information among the Allies. Moreover, the disparity in security classification between the U.S. and European databases exacerbated interoperability issues.⁶¹

The United States improved the communication systems and used electronic transmission of information such as schedules, maps, and images, while the European Allies still relied mainly on limited encrypted voice and tele-type messages for communication. The reason was that the United States had modernized the information networks compared to those of the European.⁶² For instance, the capacity of the LOCE system was limited and the volume of information among the Allies overwhelmed the system. Hence, when the U.S. commanders needed to distribute the target list and the daily Air Task Order (ATO), they had to use hand-delivery systems to transmit sensitive information to European Allies which caused lengthy process and reduced the flexibility of operations.⁶³

The United States and the rest of NATO must cooperatively develop C4 assets to meet the future military challenges effectively. NATO has to establish an integrated and secure network as well as advanced C4 technologies. The fact is that acquisition of advanced information systems would provide an interoperable architecture and it would also prevent the deficiencies of C4 field in any theater of operations.⁶⁴

6. Strategic Lift

Operation Allied Force required long distance deployment of troops and equipment, which revealed the importance of strategic transportation capability in conducting peacekeeping and crisis management operations. Strategic lift, including both air and sea transportation capability, must supply the demanded assets in a certain time and flexible composition for different contingencies. NATO's future military campaigns

⁶¹ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 49, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

⁶² David S. Yost, "The U.S.-European Capabilities Gap and the Prospect for ESDP," in *Defending Europe: The EU, NATO and The Quest for European Autonomy*, ed. Jolyon Howorth and John T.S. Keeler (New York: Palgrave Macmillan division of St. Martin's Press, 2003), pp. 89-90.

⁶³ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), pp. 56-57.

⁶⁴ David S. Yost, "The U.S.-European Capabilities Gap and the Prospect for ESDP," in *Defending Europe: The EU, NATO and The Quest for European Autonomy*, ed. Jolyon Howorth and John T.S. Keeler (New York: Palgrave Macmillan division of St. Martin's Press, 2003), p. 90.

will require strong strategic air and sealift capability in the periphery and beyond NATO borders.⁶⁵

Major support for the airlift capabilities included C-17 and C-130 aircraft which were provided by the United States during Operation Allied Force. European Allies possessed C-160 and C-130 aircraft to support transportation, but their performance was limited⁶⁶ since they were medium-size and shorter-range aircraft, which could not fulfill the necessary deployment of forces and their logistic requirements timely. Therefore, Operation Allied Force both demonstrated the heavy reliance of European Allies on U.S. aircraft and highlighted European shortcomings in strategic transportation capability.⁶⁷

The fact is that the U.S. C17s executed half of the strategic lift sorties required for Operation Allied Force. The load capacity and range enable C17 as the strategic transport aircraft, compared to the capabilities of the C-130 and C160, which can be used only for tactical transport aircraft. For instance, only C-17s can deploy the heavy equipment such as the CH-47 helicopter to the operation area.⁶⁸

Amphibious, military and civil sealift assets can also be used for the deployment of military units and equipment to the operation area.⁶⁹ Because of the rapidly evolving requirements of the military units in Operation Allied Force, NATO forces demanded the transportation of equipment in a short time, thus the use of sealift assets was relatively limited.⁷⁰ Among the European Allies, the French and British used sealift for the transportation of troops and equipment. However, the French hired commercial ships for

⁶⁵ Katia Vlasco-Dengler, *Getting There: Building Strategic Mobility into ESDP* (Paris: European Union Institute for Security Studies, November, 2002), pp. 5-14, <http://www.iss-eu.org/occasion/occ38.pdf> (accessed October 30, 2004).

⁶⁶ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 24.

⁶⁷ The International Institute for Strategic Studies, "Lessons from Kosovo: Military Operational Capabilities," in *Military Balance 1999-2000* (London: Oxford University Press, 1999), p. 290.

⁶⁸ Katia Vlasco-Dengler, *Getting There: Building Strategic Mobility into ESDP* (Paris: the European Union Institute for Security Studies, November, 2002), pp. 10-15, <http://www.iss-eu.org/occasion/occ38.pdf> (accessed October 30, 2004).

⁶⁹ Ibid., p. 16.

⁷⁰ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 33, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

the deployment of its 4,500 troops and the British used two roll-on roll-off ships (ro-ros) to deploy a significant quantity of heavy equipment for the operations.⁷¹

The European Allies have a shortfall in strategic sealift capabilities such as large ro-ro ships. Europe has only three large ro-ro ships compared with 12 large ro-ro ships for the United States. In addition, Europe has no fast sealift ships while the United States has eight of them. Another issue in strategic sealift capabilities is “the aging of the European nations’ strategic lift assets, which is particularly acute for airlift: a large part of the European airlift fleet is over 25 years old. For example, the French and German C-160s are old and due for replacement.” Moreover, European lift capabilities, in particular for sealift, are of the low fleet availability by modern standard.⁷²

Operation Allied Force not only revealed both the significance of the strategic lift capability required for rapid deployment and sustainment of NATO forces, and the deficiencies of European capabilities. The timely reaction and the deployment of the military units and resources the battlefield will be vital for the success of the operations. Therefore, it must be considered in the new security environment that the strong long-range and heavy-lift capabilities will be necessary for NATO’s peacekeeping and crisis management operations and so the European Allies need to increase their force projection abilities for the wide range of operations beyond the NATO’s borders.

7. Force Deployment

At the end of the air campaign, NATO began to deploy ground forces to Kosovo under U.N. mandate. The aim of KFOR was to provide security and stability over the region, and it was planned to have 52,000 NATO personnel for the mission. There were major problems in reaching the planned numbers of troops. On June 12 1999, NATO had sent 20,000 personnel and it only reached 38,000 KFOR troops on August 7 1999. NATO could still not get the sufficient number of forces after the two months of the initial deployment phase.⁷³

⁷¹ Katia Vlasco-Dengler, *Getting There: Building Strategic Mobility into ESDP* (Paris: the European Union Institute for Security Studies, November, 2002), p.41, <http://www.iss-eu.org/occasion/occ38.pdf> (accessed October 30, 2004).

⁷² Ibid., pp. 23-24.

⁷³ The International Institute for Strategic Studies, “Lessons from Kosovo: Military Operational Capabilities,” in *Military Balance 1999-2000* (London: Oxford University Press, 1999), pp. 31, 289.

There were two million active duty personnel of European members that had limited training both in engaging in a wide range of operations and using modern equipment for the operations. In addition, European members did not have sufficient specialist personnel and infrastructure to deploy in Kosovo. As the IISS noted “It is a startling reality that only perhaps 2-3 percent of the personnel under arms in Europe are available for deployment on missions such as KFOR.” Britain was the only European member that had the capability to provide sufficient personnel in a short time and it organized over 10,000 personnel in the initial deployment period, double the number of troops from any other European member.⁷⁴

On the other hand, the United States had sufficiently trained personnel and could present an adequate number of troops and modern equipment for this kind of operation.⁷⁵ NATO, in particular European Allies, should have the sufficient number of deployable professional forces and necessary improved infrastructure for peacekeeping and crisis management operations, since deficiencies in quick force projection would present challenges while establishing security in the operation area.

C. OVERALL EVALUATION OF THE CAMPAIGN

The Alliance military intervention in Kosovo was “the most intense and sustained operation” that had been performed by NATO since World War II. NATO had used extensive military force and it was the first major combat operation executed for peacekeeping and crisis management to prevent a humanitarian disaster in Kosovo.⁷⁶ The lessons of Operation Allied Force would shape the future military capability of the European Allies and the improvements in the ability of the Allies to conduct interoperable missions along with the superior capabilities of the U.S.⁷⁷

⁷⁴ The International Institute for Strategic Studies, “Lessons from Kosovo: Military Operational Capabilities,” in *Military Balance 1999-2000* (London: Oxford University Press, 1999), pp. 31, 289.

⁷⁵ U.S., Department of Defense, Report to Congress, *Kosovo/Operation Allied Force After-Action Report*, January 31, 2000, p. 108, <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

⁷⁶ Benjamin S. Lambert, *NATO's Air War for Kosovo: A Strategic and Operational Assessment*, Santa Monica: RAND Cooperation, 2001, p. 219,, <http://www.rand.org/publications/MR/MR1365/MR1365.ch8.pdf> (accessed September 28, 2004).

⁷⁷ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 5.

Since the assessment of Operation Allied Force lead to major concerns about the growing capability gap between the United States and the European Allies, Operation Allied Force demonstrated the imbalance in the Alliance military capabilities. Despite the NATO statement that proclaimed objectives were accomplished, there were serious limitations in the contributions of Allies to the operation that must be addressed. In a joint statement in October 1999, Secretary Cohen and the Chairman of the Joint Chiefs of Staff General Henry H. Shelton highlighted disparities in capabilities between the United States and European Allies:

[t]he operation highlighted a number of disparities between U.S. capabilities and those of our allies, including precision strike, mobility, and command, control, and communications capabilities. The gaps in capability that we confronted were real, and they had the effect of impeding our ability to operate at optimal effectiveness with our NATO allies. ... Such disparities in capabilities will seriously affect our ability to operate as an effective alliance over the long term.⁷⁸

At the operational level, the United States dominated the overall NATO operation. The United States deployed most of the aircraft along with executing the majority of air. The quantity of the air assets was not the only aspect of the NATO operation where the U.S. dominated, because the capability of the U.S. forces allowed them to conduct missions that the European Allies could not. The reason was that the United States provided all-weather and night capabilities. Besides, due to the ROE, most of the PGMs were delivered by the United States. In addition, 70 percent of the U.S. aircraft were support aircraft that proved their growing importance for NATO operations by conducting critical support missions for Operation Allied Force.⁷⁹

The European Allies did not have the capable aircraft both in quality and quantity to conduct air operations themselves. In addition, none of them had sufficient support aircraft for the deployment and sustainment of the necessary forces beyond their

⁷⁸ William S. Cohen, Secretary of the U.S. Defense and Gen. Henry H. Shelton, Chairman of the Joint Chiefs of Staff, before the Senate Armed Services Committee, *Joint Statement on the Kosovo After Action Review*, October 14, 1999, http://beqiraj.com/kosova/de/allied_force/after_action/index.asp (accessed September 26, 2004).

⁷⁹ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), pp. 24, 55.

borders.⁸⁰ Therefore, every European strike sortie required an average of three U.S. support aircraft to suppress enemy radar, refuel and direct the air battle.⁸¹ In his remarks at the Defense Week Conference in 2000, NATO Secretary General Lord Robertson stated how European Allies became dependent on the U.S. capabilities:

The Kosovo air campaign demonstrated just how dependent the European Allies had become on U.S. military capabilities. From precision-guided weapons and all-weather aircraft to ground troops that can get to the crisis quickly and then stay there with adequate logistical support, the European Allies did not have enough of the right stuff. ... Something is wrong and Europe knows it.⁸²

In the case of the decision-making process, European Allies were concerned about the leadership of the United States. At the political and strategic level, the United States had mainly influenced the route of Operation Allied Force, because the United States provided the largest part of the assets, and so it dictated the process of Operation Allied Force in which European Allies would be employed.⁸³ The U.S. Air Force commander General Short attributed United States influence on the decision-making process to the limited European military capabilities for operations:

It's my evaluation that NATO cannot go to war in the air against a competent enemy without the United States. If that's the case, and we're going to provide 70 per cent of the effort... then we need to have more than one of 19 votes. ... We will take the alliance to war and we will win this thing for you, but the price to be paid is we call the tune.⁸⁴

The European Allies complained that they were partly excluded from the decision-making process. However, if they could improve necessary military capability for

⁸⁰ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 59.

⁸¹ Carla, Anne Robbins, "No Parades: To All but Americans, Kosovo War Appears a Major U.S. Victory - Display of Military Might Makes Allies, Adversaries Doubt Their Relevance," *Wall Street Journal*, (July 6, 1999), p. A.1, <http://proquest.umi.com/pqdweb?index=0&did=42915348&SrchMode=1&sid=3&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1116288378&clientId=11969> (accessed May 1, 2005).

⁸² Lord Robertson, NATO Secretary General, *Rebalancing NATO for a Strong Future*, Defense Week Conference, Belgium, January 31, 2000, <http://www.nato.int/docu/speech/2000/s000131a.htm> (accessed September 20, 2004).

⁸³ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 55.

⁸⁴ Michael Evans, "General wanted US to call the shots in Kosovo," *The Times (UK)*, January 27, 2000, <http://agitprop.org.au/stopnato/20000128genertimuk.php> (accessed September 25, 2004).

operations both at the periphery of Europe and beyond the borders, they would have much greater influence over decision-making processes at the strategic, operational, and tactical level of NATO's future operations.⁸⁵

D. ORIGINS OF AND PROSPECTS THE MILITARY GAP

The capability gap among the Allies is not new. It has existed since the creation of NATO and became gradually significant. All European Allies of NATO focused on a potential massive attack from the East during four decades of the Cold War. Therefore, they developed military capabilities including heavy armies and short-range air fighters to meet the challenge of a major threat at their doorsteps. Hence, there was no reason to project Allied forces over the great distances from NATO borders. However, after the Cold War NATO shifted its security agenda to peacekeeping and crisis management operations. The new agenda required capable forces that are deployable and sustainable for a long time to deal with potential crisis areas. The new agenda compels the European Allies to make costly defensive improvements.⁸⁶

In the case of the defense structure, European Allies mostly followed their own various national prerogatives. Therefore, they had variety in defense areas such as industry, structure and organization, which caused not only doubling of efforts but also higher costs in regards to the lack of coordination in defense policies. All of these constraints unfortunately would delay the European Allies' capabilities in reaching necessary developments and acquisitions. James Appathurai pointed out the shortfalls of Europe's defense establishment on the eve of the twenty-first century:

These include insufficient air and sea transport to deploy European forces with their equipment; inadequate air-to-air refueling; a lack of precision-strike, all-weather-offensive fighter capability and precision-guided munitions; insufficient reconnaissance and intelligence capabilities at both the strategic and tactical level; inadequate deployable command and control; inadequate capacity to suppress enemy air defense; and shortfalls in secure, interoperable communications.⁸⁷

⁸⁵ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 59.

⁸⁶ James Appathurai, *Closing the Capabilities Gap* (Belgium: NATO Public Diplomacy Division, 2002), <http://www.nato.int/docu/review/2002/issue3/english/art1.html> (accessed September 25, 2004).

⁸⁷ Ibid.

On the other hand, the United States prepared to project its forces at great distances during the Cold War. The United States improved military capabilities to support and reinforce the European Allies on the front line, such as Eastern Turkey during the Cold War. Therefore, since the creation of NATO, the United States developed its expeditionary forces. In addition, huge investments and technological improvements were made in mobility and sustainability of the forces afield. Thus, the United States had the capability for prolonged operations beyond NATO borders. The new security agenda of NATO rewarded the capabilities of the United States, which already had trans-oceanic power projection assets.⁸⁸ In addition, the consolidated U.S. defense industry enabled the U.S. military capability to be developed on more technological based structure in contrast to the more numerous European defense companies. As a result of different structural aspects since the creation of the NATO, the United States emerged as an only NATO member having adequate expeditionary force structure:

[T]he United States developed ways of defeating Soviet air defenses (e.g., stealth and cruise missiles) and an arsenal of precision-guided anti-tank and extended-range air-to-air munitions. It also beefed up its ability to deploy large forces over great distances, as well as to conduct joint especially air-land--warfare and to bring to bear its superior overhead surveillance and other sensor technologies. These priorities led to improved strike systems and command, control, communications and intelligence systems⁸⁹

There is no possibility that the European Allies can acquire a force structure that would duplicate the U.S. capabilities in quantity and quality. However, the European Allies should have the mix of high and lower technologic capabilities that would be at least sufficient for NATO operations in more demanding environments. New technologies, operational concepts, organizational approaches, and the right composition of that mix would increase the effective contributions of European Allies to the peacekeeping and crisis management operations of NATO in future contingencies.

⁸⁸ David S. Yost, "The U.S.-European Capabilities Gap and the Prospect for ESDP," in *Defending Europe: The EU, NATO and The Quest for European Autonomy*, ed. Jolyon Howorth and John T.S. Keeler (New York: Palgrave Macmillan division of St. Martin's Press, 2003), pp. 83-84.

⁸⁹ David C. Gompert, Richard L. Kugler and Martin C. Libicki, *Mind the Gap: Promoting a Transatlantic Revolution in Military Affairs* (Washington D.C.: The Institute For National Strategic Studies, National Defense University Press, March, 1999), pp. 11-13, <http://www.ndu.edu/inss/books/books%20-%201999/Mind%20the%20Gap%20March%201999/MGap.pdf> (accessed September 15, 2004).

Critical steps going forward for the European Allies should be both enhancing their military capabilities and aiming to close the significant gap in order to achieve military transformation and meaningful progress for the fostering of coalition effectiveness.⁹⁰

In summary, Operation Allied Force revealed that the disparities in military gap have turned into a severe problem among the Allies in the post-Cold War era. The growing divergences in military capabilities between the European Allies and the United States could lead to the unhealthy division of labor and new burden-sharing debates which might result in either weakening the cohesion or marginalization of the Alliance.⁹¹ In order to achieve the Alliance's future missions, the Allies must share main responsibility for collective defense equally, along with all costs and risks.

⁹⁰ Robert P. Grant, *The RMA: Europe can keep in step* (Paris: The Institute for Security Studies of Western European Union, June, 2000), <http://www.iss-eu.org/occasion/occ15.html> (accessed October 5, 2004).

⁹¹ David S. Yost, "The U.S.-European Capabilities Gap and the Prospect for ESDP," in *Defending Europe: The EU, NATO and The Quest for European Autonomy*, ed. Jolyon Howorth and John T.S. Keeler (New York: Palgrave Macmillan division of St. Martin's Press, 2003), pp. 93-94.

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III. NATO TRANSFORMATION: BRIDGING THE CAPABILITIES GAP

The capability gap between the U.S. and European Allies has become a major concern in the transatlantic relations throughout the last decade because it is perceived as a hindrance for NATO's operational ability to meet the challenges of the 21st century. Because the new threats against NATO members have arisen outside its traditional responsibility area, NATO must have a more mobile, deployable and sustainable force structure. This was the reason that the U.S. pushed for the adaptation of new initiatives to fill gaps in the Alliance's military capabilities. The fear of the U.S. was that the European Allies would be unable to close growing gaps in force structure and the effectiveness of the Allies in coalition operations to carry out new missions far from their home territory would be low.⁹² The concern was that the capability gap evidently presented an unhealthy division of labor between the United States and European Allies. Furthermore, European Allies failed to acquire the necessary technological capabilities for their military force structure. The overwhelming U.S. military contribution to operations vis-à-vis the limited European military contribution proved that European Allies achieved little progress in closing the military gap since the end of the Cold War.⁹³

The purpose of this chapter is to examine NATO's capability transformation process regarding the commitments made by the Allies in the Washington, Prague and Istanbul Summits. In the light of its New Strategic Concept, NATO launched the Defense Capability Initiatives (DCI) in order to have sufficient and effective military capability while performing Article-V or non-Article-V operations. Following the dramatic terror attacks on 11 September 2001, Prague Capability Commitments were approved as part of the Alliance's continuing effort and in order to reinforce capabilities for modern warfare in high threat environments, and the Istanbul Summit gave the further shape and direction to the transformation process. The chapter draws on capability commitments of the

⁹² Gordon Wilson, *European Force Structures* (Paris: The Institute for Security Studies Western European Union, August 1999), p. 15, <http://www.iss-eu.org/occasion/occ08.pdf> (accessed January 3, 2005).

⁹³ Claire Taylor, *NATO: Prague Summit and Beyond* (London: International Affairs and Defense Section, House of Commons Library, January 16, 2003), p. 21, <http://www.parliament.uk/commons/lib/research/rp2003/rp03-005.pdf> (accessed January 3, 2005).

Alliance at each summit and measures the progress made by the European NATO member states in bridging the capabilities gap between the United States and European forces.

A. THE WASHINGTON SUMMIT AND THE ALLIANCE STRATEGIC CONCEPT

NATO Allies approved the Alliance's New Strategic Concept during the Washington Summit in April 1999. The Strategic Concept emphasized that NATO had ensured the security of its members and prevented war against the freedom of them throughout the Euro-Atlantic region during the Cold War. However, the new security environment presented new risks and challenges so that the Alliance committed itself to the essential missions for the interest of wider stability. Therefore, NATO has a greater responsibility and a demanding agenda in meeting future security challenges. The new strategic concept identified and provided guidelines for the transformation of NATO military forces in the new security environment. It is highly unlikely that NATO will face large-scale conventional aggression against its borders for the foreseeable future. However, potential threats such as instability and regional crises can emerge on the periphery of the Euro-Atlantic area as a result of ethnic and religious rivalries, territorial disputes and the abuse of human rights. The resulting tensions can affect the stability and security of the Alliance if the conflicts spill over into regions including member countries. The security of the Alliance may be affected by global risks such as terrorism and organized crime. Furthermore, the global spread of military technology and the proliferation of NBC weapons and their delivery methods remain a serious concern. The new Strategic Concept highlighted NATO members' aim to preserve peace and stability by maintaining sufficient and effective military capabilities for defense and deterrence, as well as performing the full range of essential missions.⁹⁴

Alongside the security objectives, the new Security Concept required sufficient military capability of the Alliance to contribute to conflict prevention and crisis management through non-Article V operations besides maintaining capabilities for dealing with conventional aggression against members. Future NATO operations are likely to be smaller in scale and longer in duration. The use of NATO's infrastructure for

⁹⁴ NATO Press Release, *The Alliance's Strategic Concept* NAC-S(99)65, April 24, 1999, <http://www.nato.int/docu/pr/1999/p99-065e.htm> (accessed January 3, 2005).

operations may be limited or not available for missions outside of NATO's borders. In addition, access to civilian assets such as civilian transport assets for deployment may not be possible at all times for military operations. All of these developments require more sufficient military capabilities for the Alliance force structure in dealing with the management of crises involving complex and diverse range of actors, risks and demands. The success of NATO's operations highly depends on the fair sharing of roles and responsibilities as well as fair contributions from all members to the full range of NATO operations.⁹⁵

The new Security Concept identified the current deficiencies in the Alliance force structure, which was clearly revealed during Operation Allied Force in Kosovo. Most of the Allies did not have sufficient abilities to deploy and sustain significant forces for operations far from their home bases. Command-control and information systems of the Allies could not match the requirements of future operations regarding the high flow of information. The challenges of interoperability were remarkable as a result of advanced technological capabilities and gaps among NATO members and had to be overcome to increase the effectiveness of the multinational operations.⁹⁶

B. THE DEFENSE CAPABILITIES INITIATIVE

In accordance with the Alliance's new Strategic Concept, NATO Heads of State and Government also launched the DCI during the Washington Summit in April 1999, which aimed to improve and strengthen the Allies' military capabilities not only to fulfill the new Strategic Concept but to also close the growing capability gap. The DCI was designed to ensure a common assessment of Alliance military improvements and included the most essential areas in capabilities with special focus on interoperability.⁹⁷

The DCI focused on 58 goals, which fell into the following main areas for improvements of the capabilities of the Alliance:

- deployability and mobility: the ability to deploy personnel and equipment in a short period to crisis areas including outside Alliance territory.

⁹⁵ NATO Press Release, *The Alliance's Strategic Concept* NAC-S(99)65, April 24, 1999, <http://www.nato.int/docu/pr/1999/p99-065e.htm> (accessed January 3, 2005).

⁹⁶ Ibid.

⁹⁷ NATO Press Release, *Defense Capabilities Initiative* NAC-S(99)69, April 25, 1999, <http://www.nato.int/docu/pr/1999/p99s069e.htm> (accessed January 3, 2005).

- sustainability and logistics: the ability to maintain troops in the field and to supply basic provisions as well as equipment for long duration operations.
- effective engagement: the ability to have adequate firepower to engage the enemy in all types of operations with stand-off-weapons and precision guided munitions.
- survivability of forces and infrastructure: the ability to defend forces and infrastructure against all threats such as weapons of mass destruction.
- command and control information systems: the ability to have secure and interoperable systems, which are compatible and allow forces to communicate effectively together without being overheard by the adversary.⁹⁸

During the Washington Summit, NATO also created the High Level Steering Group (HLSG) to both manage the implementation of the DCI and integrate the efforts of the various NATO committees and affected bodies.⁹⁹ The HLSG involved senior defense ministry officials of NATO gathered every few weeks to review the progress, and later it was decided to extend the mandate of the HLSG through the Prague Summit in 2002. The HLSG provided coordination and harmonization of Alliance capability commitments to meet the DCI objectives. In addition, the HLSG coordinated planning of the DCI objectives in the NATO force planning process so that the implementation of the DCI could be carried out in conjunction with the NATO force planning process.¹⁰⁰

1. NATO's Force Goals and National Perspectives

The NATO force planning process coordinates the national defense plans of NATO members, in which member states report the endeavors they put into action or service to develop their military force structure.¹⁰¹ However, the process is not an enforcement mechanism because national governments or parliaments make the final decision to develop a given capability. The NATO force planning process is determined by the Ministerial Guidance, which identifies the priorities and concerns for needed Alliance capabilities. In the context of the Ministerial Guidance, NATO commanders

⁹⁸ NATO Parliamentary Assembly, Defense and Security Sub-Committee on Future Security and Defense Capabilities, Interim Report, *The Defense Capabilities Initiative and NATO's Strategic Concept*, November, 2000, par. 16-17, <http://www.nato-pa.int/archivedpub/comrep/2000/at-245-e.asp>. See Also, NATO Handbook, *The Transformation of the Alliance, NATO's Defense Capabilities Initiative*, October 8, 2002, <http://www.nato.int/docu/handbook/2001/hb0205.htm> (accessed January 3, 2005).

⁹⁹ John Borawski and Thomas-Durell Young, *NATO After 2000, The Future of the Euro-Atlantic Alliance* (Connecticut: Praeger Publishers, 2001), p. 10

¹⁰⁰ NATO Press Release, *Defense Capabilities Initiative*, NAC-S(99)69, April 25, 1999, <http://www.nato.int/docu/pr/1999/p99s069e.htm> (accessed January 6, 2005).

¹⁰¹ John E. Peters, et al, *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 2.

designated the defense requirements of NATO, and Force Proposals for each member were developed based on the assessments of the major commanders, international military staff, and international staff. As a result, the whole process generated the Force Goals of NATO in order to implement the Strategic Concept and to possess the needed capabilities for all individual nations and the Alliance.¹⁰² The average number of Force Goals for NATO members increased considerably from 100 to 160 in 2000.¹⁰³ The dramatic increase was notable in such areas as proliferation of weapons mass destruction, ISR, C2 and mobility, and the aim was to ensure essential capabilities envisioned in the Strategic Concept. NATO Force Goals were approved at the June 2000 Ministerial Meeting and included many of the DCI objectives:

Officials familiar with the content of the goals say that many of the objectives of the DCI are contained within. Of the 2,760 FGs, approximately 1,900, or 69%, are related to one or more of the 58 DCI items. In total, 36 of the 58 DCI items have been included in this year's FGs. ... DCI has been translated into FGs this year can be taken as a clear indication of DCI's success in its early stages. ... DCI has given momentum to NATO's efforts to reduce the capability gap.¹⁰⁴

All European members were active participants in the early stages of the DCI and some national defense strategy initiatives had been launched before the Washington Summit, and the DCI gave impetus to the efforts of the European Allies. The United Kingdom was restructuring its armed forces and support capabilities that could operate in range of operations and retained two deployable divisions including deployable military assets such as strategic lift and joint logistic support. In the case of procurement projects, the United Kingdom was reinforcing its power projection capabilities, and programs were also underway in accordance with the DCI to purchase of two new aircraft carriers, A-400M transport aircraft and a Euro-fighter multi-role combat aircraft, as well as

¹⁰² NATO Parliamentary Assembly, Defense and Security Sub-Committee on Future Security and Defense Capabilities, Interim Report, *The Defense Capabilities Initiative and NATO's Strategic Concept*, November, 2000, par. 95, 96, 97, <http://www.nato-pa.int/archivedpub/comrep/2000/at-245-e.asp> (accessed January 7, 2005).

¹⁰³ NATO Parliamentary Assembly, Defense and Security Sub-Committee on Future Security and Defense Capabilities, Interim Report, *NATO's Role in Defense Role*, October, 2001, par. 17, <http://www.nato-pa.int/archivedpub/comrep/2001/au-199-e.asp> (accessed January 7, 2005).

¹⁰⁴ NATO Parliamentary Assembly, Defense and Security Sub-Committee on Future Security and Defense Capabilities, Interim Report, *The Defense Capabilities Initiative and NATO's Strategic Concept*, November, 2000, par. 101, 104, <http://www.nato-pa.int/archivedpub/comrep/2000/at-245-e.asp> (accessed January 7, 2005).

Tomahawk land attack cruise missiles. France was eliminating all conscripts and replacing them with deployable lighter combat forces composed of professional soldiers who could carry out out-of-area operations. In addition, France was working on setting reaction forces through 100 aircraft, a carrier battle group, and several nuclear attack submarines. Despite the fact that the NATO force planning process did not include France, France played a leading role in the HLSG and concentrated on 12 of the 58 DCI goals. Germany was reorganizing its forces towards modernization including strategic deployability, C3 facilities and increasing the number of professional soldiers. Italy was introducing major reforms for modernization of its armed forces and enhancing military capabilities in the areas of strategic and tactical airlift, satellite communication, deployability and sustainability of forces. Other European Allies were also modernizing their forces to meet the requirements of the new security challenges and the Strategic Concept. As a result, the DCI represented a high level of support and commitments from European Allies during its early stages within initiated major reforms either before or during the Washington Summit.¹⁰⁵

The whole process along with information related to the Force Goals of NATO or the DCI achievements of members remains classified defense information. However, by examining various unclassified sources, the progress made by NATO members in the fulfillment of their commitments to the DCI can be analyzed or reviewed, in particular the European members. In February 2000, almost one year after the DCI, Secretary of Defense William S. Cohen pointed out the Allies' lack of progress on capability commitments in his speech at the 36th Munich Conference on Security Policy.

[L]et me just list to you what we haven't done: Less than half of the nations who agreed to do so have made their full contributions to asset-tracking systems for better logistical support; Less than half of the requested nations have contributed their full share to advance intelligence network; Less than half of the nations that have been asked to deploy command and control modules to improve interoperability have done so; Two of the seven nations that now have air-to-air refueling for alliances have met their targets for the rapid reaction force; Only one out of fourteen nations assigned to work in the deployable headquarters, that can

¹⁰⁵ NATO Parliamentary Assembly, Defense and Security Sub-Committee on Future Security and Defense Capabilities, Interim Report, *The Defense Capabilities Initiative and NATO's Strategic Concept*, November, 2000, par. 25, 26, 29, 31, 38, 40, 43, 106, 108, 111, <http://www.nato-pa.int/archivedpub/comrep/2000/at-245-e.asp> (accessed January 7, 2005).

withstand biological and chemical attacks, has done so. I could go on down the list. This is not acceptable. You cannot have a situation in which one country bears a disproportionate burden.¹⁰⁶

Secretary Cohen also mentioned that the European members had to increase their defense budgets to achieve the reforms and the procurement requirements, but the fact was that “In looking at the budgets that I see from our side of the Atlantic, I see countries consistently cutting their budgets at the very same time that there is a recognition that you have to improve your capabilities.” Therefore, European allies must allot more resources to both implement capabilities and achieve Force Goals, and DCI must be incorporated and developed in the force planning process of NATO.¹⁰⁷

2. Further Progress and Implementation of the DCI

In June 2001, NATO interpreted an assessment of progress and deficiencies in implementing the DCI at the NAC meeting of defense ministers on the basis of the HLSG report. It concluded, “although progress had been made in certain areas, further efforts are required to achieve necessary improvements.” There were a number of critical and long-standing deficiencies that remained in such areas as:

- effective engagement and survivability of Alliance forces;
- suppression of enemy air defenses and support jamming;
- combat identification;
- intelligence, surveillance and target acquisition (including the Alliance Ground Surveillance system);
- air weapons systems for day/night and all weather operations;
- air defense in all its aspects, including defense against theatre ballistic missiles and cruise missiles;
- capabilities against nuclear, biological, and chemical weapons and their means of delivery, as well as NBC detection and protection.¹⁰⁸

Defense ministers recommitted themselves to accelerate member efforts, particularly in critical and long-deficiency areas by making effective use of existing

¹⁰⁶ The U.S., Department of Defense, Speeches, Secretary of Defense William S. Cohen remarks as delivered at the 36th Munich Conference on Security Policy titled *European Security and Defense Identity*, February 5, 2000, <http://www.defenselink.mil/speeches/2000/s20000205-secdef.html> (accessed January 5, 2005).

¹⁰⁷ Ibid.

¹⁰⁸ NATO Press Release, *Statement on the Defense Capabilities Initiative* M-NAC-D-1 (2001)89, June 7, 2001, <http://www.nato.int/docu/pr/2001/p01-089e.htm> (accessed January 7, 2005).

resources, increasing available resources for necessary improvements and engaging more directly in decisions on potential multinational projects for cooperative solutions.¹⁰⁹

More than two years after its launch the DCI addressed 58 items, 18 goals had been almost completed or were in the final stage, 22 goals were in the middle stage and 18 goals were in the early stage. The acquisition of some capabilities, such as multinational sealift and airlift, was rather easy, because these goals required only looking at the options and did not require action itself. However, more demanding goals were not fulfilled. One of the reasons for slow implementation was that many cases entailed procurement programs that would take years to fulfill; financial constraints were also a major concern.¹¹⁰ At the end of 2001, the NATO Defense and Security Sub-Committee described the progress in several main areas mentioned below.

Deployability and Mobility required relatively low technology assets, and despite the commitments of the members for large air transport and sealift, the main concern on this process was the financial nature of the assets. Seven countries, including the United Kingdom, Belgium, France, Turkey, Luxembourg, Portugal and Spain signed a memorandum of understanding regarding the purchase of nearly 200 A400M transport aircraft. In the field of sealift, the United Kingdom, Belgium and the Netherlands decided to purchase new logistic ships.¹¹¹

Command and Control Information Systems, which were included in eight goals of the DCI, were progressing well, and Allies acquired some type of equipment such as combat identification and deployable command and control capabilities. In this field, Allies made progress in the development of interoperability and definitions of Allies' standards. However, there remained the challenges for further improvements of the C3

¹⁰⁹ NATO Press Release, *Statement on the Defense Capabilities Initiative* M-NAC-D-1 (2001)89, June 7, 2001, <http://www.nato.int/docu/pr/2001/p01-089e.htm> (accessed January 7, 2005).

¹¹⁰ NATO Parliamentary Assembly, Defense and Security Sub-Committee on Future Security and Defense Capabilities, Interim Report, *NATO's Role in Defense Role*, October, 2001, par. 6, <http://www.nato-pa.int/archivedpub/comrep/2001/au-199-e.asp> (accessed January 7, 2005).

¹¹¹ Ibid., par. 7.

structure because the designed system must be compatible and entirely interoperable with all systems that require further resources and technology.¹¹²

In the field of *Effective engagement*, which was included in 22 goals of the DCI, there was much work to do, because SEAD, Air to Ground Surveillance (AGS), and all-weather precision-guided munitions were high cost assets for procurement and these systems required major research and development of new systems and technologies. Therefore SEAD and AGS did not achieve much progress in the two years prior to the NATO Defense and Security Sub-Committee report at the end of 2001. Besides, some of the European Allies were upgrading their combat aircraft and PGMs, but the progress entailed a few years to be completed. Hence further funding had to be guaranteed for the progress.¹¹³

Sustainability and Logistics achieved remarkable progress with the decision of the Multinational Joint Logistic Center (MJLC), which provided multinational approach to logistics issues during operations. By the directives of the theater commander, each member would be responsible for one or more components of logistics support for the operation environment instead of providing all kinds of support. The result would present significant savings for the financial and human resources of Allies.¹¹⁴

Survivability and Infrastructure made insufficient progress due to funding constraints. The Allies had shortfalls related to areas such as protection equipment and defense against attacks from weapons of mass destruction. The fact was that Allies did not identify a forthcoming risk of a NBC attack, and the area could not get priority in regards to the constraints of the Allies' national spending.¹¹⁵ In regards to the Theater Missile defense (TMD), it was not all NATO members, but only the United States, Germany and Italy that were working on the Medium Extended Air Defense Systems (MEADSs) to counter ballistic and cruise missile attacks on their deployed troops. Also,

¹¹² NATO Parliamentary Assembly, Defense and Security Sub-Committee on Future Security and Defense Capabilities, Interim Report, *NATO's Role in Defense Role*, October, 2001, par. 8, <http://www.nato-pa.int/archivedpub/comrep/2001/au-199-e.asp> (accessed January 7, 2005).

¹¹³ Ibid., par. 9.

¹¹⁴ Ibid., par. 10.

¹¹⁵ Ibid., par. 11.

Britain, France and Italy were improving the Principal Anti-Air Missile Defense,¹¹⁶ but the projects remained related to the insufficient funding by the countries involved. The Defense and Security sub-committee cited the greatest obstacles including inadequate defense spending and fragmented Research and Development (R&D) spending for the implementation of the DCI:

Officials at NATO headquarters say inadequate defense spending is the greatest hurdle in implementing the DCI. ...European defense spending is falling by 5% a year in real terms. Even those countries fully committed to fulfilling the DCI decisions face this problem and have found progress slow because of significant financial restrictions. Research and development (R&D) in particular is cited as being inadequately funded. As already seen, several of the DCI items call for the development of assets that do not yet exist, and it is clear that without sufficient R&D the realization of DCI objectives will be seriously delayed. As the European Allies combined spend one-fourth of what the United States spends on R&D, and spend it in a more fragmented manner, it is generally recognized that this ratio has to improve for the DCI to succeed in progressively reducing the technology gap.¹¹⁷

In light of the criticisms of the DCI progress, the terrorist attacks on 11 September 2001 revealed that NATO must have the capability to deploy flexible and well-armed forces to anywhere in the world on short notice and that forces must have the capability to conduct sustained operations. In the current environment, NATO must continue to improve essential capabilities in order deal with terrorism. European members were not equipped sufficiently to wage modern warfare and had to pool appropriate resources and specialize in them, which would enable them to do collectively what they were unable to do individually.¹¹⁸ Nevertheless, the terrorist attacks on 11 September 2001 and its aftermath did not trigger a “U-turn” in defense spending of the European Members. For example, Germany came up with a modest increase of its defense spending, but partially pulled backed from the financial commitments on the

¹¹⁶ NATO Parliamentary Assembly, Defense and Security, General Report, *National Missile Defense and the Alliance after Kosovo*, November, 2000, par. 63-66, <http://www.nato-pa.int/archivedpub/comrep/2000/at-243-e.asp> (accessed January 9, 2005).

¹¹⁷ NATO Parliamentary Assembly, Defense and Security Sub-Committee on Future Security and Defense Capabilities, Interim Report, *NATO's Role in Defense Role*, October, 2001, par. 23, <http://www.nato-pa.int/archivedpub/comrep/2001/au-199-e.asp> (accessed January 7, 2005).

¹¹⁸ Elizabeth A. Jones, *The Road to NATO's Prague Summit: New Capabilities, New Members, New Relationships*, Speech to the World Affairs Council of Northern California San Francisco, California, October 21, 2002, <http://www.state.gov/p/eur/rls/rm/2002/14609.htm> (accessed January 9, 2005).

A400M.¹¹⁹ Jamie Shea, Director of Information and Press of NATO, discussed the NATO's role in the ensuing war on terrorism and noted the urgent need to narrow the transatlantic capability gap:

Sept. 11 brings us back to an old problem in NATO which has not gone away, but which requires urgent treatment: the question of defense capabilities... We have seen the United States pull ahead, spending \$48 billion more, which is 40% of world defense expenditure... The danger there is that there will be a kind of unbridgeable chasm between the Americans and the Europeans... The Europeans spend \$150 billion a year, which was about half of the U.S. defense budget prior to Sept. 11, but it is calculated that they get only 10-12% of what the Americans get in terms of output. Clearly the Europeans have got to see how they can reorganize defense spending to specialize, for example, in roles to have more common procurement, to have more common assets, because otherwise there will be these transatlantic gaps.¹²⁰

Military capabilities proved their importance once more during the operations in Afghanistan. Most of the 19 NATO members have had forces directly engaged alongside the ongoing US-led military operations against targets in that country. Despite the 58 specific areas of shortfall identified in 1999, the operation demonstrated that the United States remained in favor of acting through coalitions within military capabilities. In May 2002, NATO Secretary General Lord Robertson pointed out the lasting deficiencies in military capabilities of NATO members:

The United States is adopting new technologies and operational concepts more rapidly and on a larger scale than its Allies. ... only Turkey and the United Kingdom are spending the same proportion of their defense budgets on research, the development, and procurement as does the United States. ... This gap is not simply a gap in numbers. It has real operational significance. Two examples illustrate it: First, strategic airlift. Europe's shortcomings are clear. At this moment, only the UK has even a very limited strategic airlift capability. The arrival of the A400M will change this picture -- but only at the end of this decade. ... [I]t meant a significant lack in transporting heavy equipment, from supply trucks through to armored troop carriers, and chemical and biological detection vehicles. A second example is precision-guided weapons. ... Most nations do have

¹¹⁹ Antonia Missiroli, *Defence Spending in Europe: Is Europe Prepared to Pay for Improved Capabilities*, Paper given at the Conference on ESDP, December 13-15, 2001, <http://www.iss-eu.org/new/analysis/analy018.html> (accessed January 6, 2005).

¹²⁰ Chris Lindborg, *NATO Obviously Has to Move Ahead*, An Interview with NATO's Jamie Shea, Basic Publications (Washington D.C.: The British American Security Information Council, April, 2002), <http://www.basicint.org/pubs/BReports/BR80.htm> (accessed January 6, 2005).

precision-guided munitions, but only the US can employ them day or night, in good or bad weather. ... We must ensure that the burdens, the costs, the risks, but also the responsibilities are shared equally.¹²¹

RAND cooperation report noted that even though the DCI sought to stimulate military modernization measures of the European Allies, with the intention of improving both expeditionary capabilities of the European Allies and their interoperability with the United States Forces, the DCI process “lacked a common strategic orientation.” It did not provide “doctrinal and institutional links to the U.S. force-transformation process.” As a result, the process could not set “priorities” and could not achieve to inspire “allied investment in force modernization”.¹²² Almost all of the European Allies duplicated the other’s efforts while improving capabilities. Duplication marginalized the defense spending of NATO’s European members, which was some 40 percent of the United States level, and why it provided only a small fraction of the U.S.’s military punch.¹²³ The shortcomings of European capabilities remained existent in almost all urgent areas since the launch of the DCI. The long list of initiatives to reverse the widening technological and material gap between the United States and Europe did not achieve further progress and became obvious that the list must be reduced, and the Allies must present more concentrated efforts to achieve the acquisitions. In 2002, Sir Timothy Johnson, a member of the International Institute for Strategic Studies, summarized the final status and deficiencies of the DCI efforts of European Allies and concluded that no significant progress had been achieved:

After three years the DCI has achieved little ... Funding the key enabling capabilities still remains unsolved. There is no mystery about the restructuring of military capabilities that is needed throughout Europe, but national, institutional, political and industrial vested interests make progress towards more useful and cost effective military capability painfully slow. All militaries suffer from the public sector problem. ... [F]or many military activities numbers of people are not amenable to reductions through increase in productivity. ... [I]t is not just how little we

¹²¹ NATO Speeches, *Defense and Security in an Uncertain World*, Keynote Speech by NATO Secretary General Lord Robertson at Forum Europe, Brussels, May 17, 2002, <http://www.nato.int/docu/speech/2002/s020517a.htm> (accessed January 6, 2005).

¹²² David C. Gompert and Uwe Nerlich, *Shoulder to Shoulder, The Road to U.S.-European Military Cooperability* (Santa Monica: Rand Cooperation, 2002), p. 10

¹²³ Charles Grant and Tim Garden, “Europe could pack a bigger punch,” *Financial Times* (December 17, 2002), http://www.cer.org.uk/articles/grant_ft_17dec02.html (accessed January 6, 2005).

spend, it is also how badly we spend it. [Fifteen] nations [are] duplicating all their defence activities. If we were a multinational business, which in a sense we are, we would long ago have rationalised our supply chains, our training, our product delivery systems, and done away with the bureaucracy of the headquarters in every country. This is politically very difficult for member states. ... [The United States] is investing far more in military research and development than Europe. Most EU forces are irrelevant to US needs on [sic] the types of operations that America wishes to undertake. The Europeans will fall further and faster behind unless they both increase spending and rationalize between themselves.¹²⁴

3. Transition to the New Initiative

New threats relevant to terrorism increased both the urgency and importance of adaptation capability. It was an obligation for NATO force structure to develop more detailed steps in capabilities to meet the threats posed by terrorism or other challenges such as the proliferation of weapons of mass destruction. The Alliance should have been accommodated to adapt to new challenges in order to ensure that the NATO members had the force structures capable of responding. Despite the improvements in the DCI, the progress was uneven and a much greater and focused effort was necessary.¹²⁵ The 58 goals identified for the force structure weakened the focus of the DCI and it made it too easy for the European Allies either to find excuses or not to come up with the essential goods. Therefore, the focus must be narrowed to a smaller number of essential capabilities for the full range of missions that would be based on more precise national commitments and would include specific target dates to compel members.¹²⁶ In this context, in June 2002, NATO defense ministers established four priorities in capabilities for the new DCI:

- to defend against chemical, biological, radiological and nuclear attacks;
- to ensure secure command communications and information superiority;
- to improve interoperability of deployed forces and key aspects of combat effectiveness;

¹²⁴ Tim Garden, *What Can We Afford?* A panel contribution about Europe and America: A New Strategic Partnership, February 18, 2002, <http://www.tgarden.co.uk/writings/articles/2002/020218riia.html> (accessed December 6, 2004).

¹²⁵ NATO Press Release, *Statement on Capabilities* (2002)074, June 6, 2002, <http://www.nato.int/docu/pr/2002/p02-074e.htm> (accessed October, 16, 2004)

¹²⁶ General Klaus Nauman, "Transforming Alliance, Crunch Time for the Alliance," *NATO Review*, no.2, (Summer 2002), <http://www.nato.int/docu/review/2002/issue2/english/art3.html> (accessed January 6, 2005).

- to ensure rapid deployment and sustainment of combat forces.¹²⁷

NATO defense ministers decided to submit new initiatives at the Prague Summit and then put forward the proposals and programs for adaptation and approval by Heads of States and Government at Prague. The identified time limit and nation-specific commitments marked the difference from the previous DCI. It could present new impetus for European Allies to re-prioritize their defense spending and it also could present more realistic and achievable goals in capabilities.¹²⁸ The intention was to encourage pooling of military capabilities and increase role specialization. The new initiative also provisioned cooperative acquisition of the equipment and the shift of funding towards key assets. Robertson announced the endorsement of these principles that represented “radical breaks with the past.”¹²⁹

It is unlikely that, any NATO country besides the United States can solely have the full range of capabilities for out-of-area operations. Furthermore, it became troublesome for each European member to try to fulfill all military commitments and tasks within national endeavors. Therefore, the decision on the pooling of military assets and role specialization would facilitate the improvement of military capabilities so that NATO members can concentrate on particular areas. For instance, the Czech Republic officially presented a chemical and biological warfare unit for NATO operations. Via pooling of assets, NATO Allies can work together to produce a necessary military capability, which cannot be afforded only by one country.¹³⁰ In his July 2002 speech, Robertson explained “in key areas, the enhancement of NATO's capabilities is simply more likely to be achieved through common programs, ideally by providing jointly

¹²⁷ NATO Press Release, *Statement on Capabilities* (2002)074, June 6, 2002, <http://www.nato.int/docu/pr/2002/p02-074e.htm> (accessed January 6, 2005).

¹²⁸ Claire Taylor, *NATO: Prague Summit and Beyond* (London: International Affairs and Defense Section, House of Commons Library, January 16, 2003), p.23, <http://www.parliament.uk/commons/lib/research/rp2003/rp03-005.pdf> (accessed January 16, 2005).

¹²⁹ NATO Speeches, *Tackling Terror: NATO'S New Mission* Speech by NATO Secretary General, Lord Robertson, June 20, 2002, <http://www.nato.int/docu/speech/2002/s020620a.htm> (accessed January 11, 2005).

¹³⁰ House of Commons, Defense Committee, *The Future of NATO*, Seventh Report of Session 2001-02, July 30, 2002, par. 133-134, <http://www.parliament.the-stationery-office.co.uk/pa/cm200102/cmselect/cmdfence/cmdfence.htm> (accessed January 6, 2005).

owned and jointly operated capabilities, such as AWACS.”¹³¹ The NATO Airborne Warning and Control System (AWACS), which includes 17 E-3A aircraft, is the largest commonly funded project ever undertaken by the Alliance, and provides an air-defense system over the Euro-Atlantic region. The E-3A AWACS fleet protects Alliance members from threats such as terrorism (e.g. Operation Eagle Assist) and supports NATO crisis management operations.¹³² If the new process can be managed in a systematic way, by avoiding duplication of capabilities and by authorizing which members specialize and achieve the items of military capabilities, then the defense capability process can fully meet the requirements of NATO operations in a short period.

C. THE PRAGUE SUMMIT: THE TRANSFORMATION SUMMIT

After the dramatic terror attacks on September 11 2001, NATO nations invoked Article V of the NATO Treaty for the first time in its history. NATO sent AWACS airborne air surveillance aircraft to the United States to defend its territory against possible further attacks. Most of the European members offered military support for the operations in Afghanistan, and although the United States was grateful for the Allies implicit support, it took up military support of the Allies slowly. Besides political concerns, the reality was that the United States hesitated to give the leading role to NATO in Afghanistan because of the military capabilities of the Alliance. There were concerns whether the European Allies could operate effectively with U.S. forces. Most of the European Allies gradually played an active role during the operations, but agreements were made on a bilateral basis with the United States.¹³³ Subsequently, the role of NATO in the new security environment has raised questions on whether NATO could act as an effective military coalition. The need for modernization in terms of military capabilities, particularly for the European Allies, was urgent. Therefore the Prague Summit was a

¹³¹ NATO Speeches, Remarks by NATO Secretary General Lord Robertson at the GKN Farnborough Dinner, RAC Club, London, July 25, 2002, <http://www.nato.int/docu/speech/2002/s020725a.htm> (accessed December 6, 2004).

¹³² NATO, NATO Library, *AWACS: NATO's Eyes in the Sky* (Brussels: NATO Public Diplomacy Division, November, 2004), <http://www.nato.int/issues/awacs/brochure/awacs.pdf> (accessed December 13, 2004).

¹³³ Bruce W. Weinrod, “NATO after Prague and Copenhagen,” *Mediterranean Quarterly*, (Spring 2003), pp. 2-3, http://muse.jhu.edu/journals/mediterranean_quarterly/v014/14.2weinrod.pdf (accessed January 6, 2005).

significant milestone on the road to NATO's transformation that put an end to the transatlantic debates on commitments.¹³⁴

There have been significant Summit meetings in NATO's history alongside with the changes in the security situation. What makes the Prague Summit different and distinguishes it from previous landmarks was that it concentrated on "NATO's comprehensive transformation."¹³⁵ The terrorist attacks and the increased threat posed by weapons of mass destruction changed the parameters of strategic thinking and underlined a fundamental shift in threat assessment, which led to both the transformation of the Alliance and its ability to adopt to challenges of asymmetric warfare.¹³⁶ Robertson, a month after the Prague Summit, addressed the threats and challenges that the international community and Alliance might likely face for the next decade and even longer:

My first prediction: more instability... The Caucasus, Central Asia, Northern Africa and the Middle East all offer a rich current and potential cocktail of instability. ... My second prediction: more spillover. ... into Europe and North America. Spillover through migration, rising numbers of people seeking asylum, a booming industry in people smuggling, and all that goes it with it... My third prediction: more terrorism. On September 11, 2001, a threshold was crossed. ...A special breed of terrorism has come to the fore - driven not by achievable political aims, but by fanatical extremism and the urge to kill. ...My fourth prediction: more failed states. ... My next prediction: more proliferation. ...the spread weapons of mass destruction will be a defining security challenge of this new century.¹³⁷

Three years after the Washington Summit, the Strategic Concept of the Alliance shifted again as a result of the challenges in the new security environment, because the threat assessment fundamentally changed, and that shift brought questions over NATO's

¹³⁴ Luke Hill, "NATO Warned on Capabilities Gap," *Jane's Defense Weekly*, May 29, 2002, <http://jdww.janes.com/> (accessed December 12, 2004).

¹³⁵ NATO, NATO Library, *The Prague Summit and NATO's Transformation* (Brussels: NATO Public Diplomacy Division, 2003), p. 3.

¹³⁶ Claire Taylor, *NATO: Prague Summit and Beyond* (London: International Affairs and Defense Section, House of Commons Library, January 16, 2003), p. 9, <http://www.parliament.uk/commons/lib/research/rp2003/rp03-005.pdf> (accessed January 2, 2005).

¹³⁷ NATO Speeches, *NATO: A Vision for 2012, Prague 2002: Challenge and Change for NATO*, Speech by NATO Secretary General, Lord Robertson at the NATO/GMFUS Conference Brussels, October 3, 2002, <http://www.nato.int/docu/speech/2002/s021003a.htm> (accessed January 3, 2005).

role in the new security environment. The Prague Summit offered the opportunity to both reinvent the Alliance and establish a new security role for the future. NATO Heads of States and Government took ambitious decisions to build on and strengthen the premises of the 1999 Strategic Concept. In this context, they approved a comprehensive package of measures to strengthen NATO's ability to meet the challenges to the security of the Alliance.¹³⁸ The Prague Summit reinforced the agreement that NATO was determined to deter, disrupt, defend and protect against any attacks on the security of the Alliance's forces, population and territory, and that the full range of missions can be better performed with balanced capabilities.¹³⁹ NATO members adopted new capabilities initiatives to strengthen the Alliance's preparedness ability to meet the full spectrum of security challenges, which organized around three major themes:

- the Prague Capabilities Commitments (PCCs)
- the creation of NATO Response Force (NRF)
- the streamlining of the NATO's military command structure¹⁴⁰

1. The Prague Capability Commitments

The Allies decided to approve the Prague Capabilities Commitments at the Prague Summit, which was the part of the continuing Alliance effort to improve and develop new military capabilities for modern warfare in a high threat environment. Individual Allies have made firm political commitments to bring about improvements and to acquire the capabilities that will enable them to carry out all future NATO missions. The PCC covered the following areas:

- chemical, biological, radiological, and nuclear defense;
- intelligence, surveillance, and target acquisition;
- air-to-ground surveillance;
- command, control and communications;
- combat effectiveness, including precision-guided munitions and suppression of enemy air defenses;

¹³⁸ Claire Taylor, *NATO: Prague Summit and Beyond* (London: International Affairs and Defense Section, House of Commons Library, January 16, 2003), pp. 9, 16, 18, <http://www.parliament.uk/commons/lib/research/rp2003/rp03-005.pdf> (accessed January 6, 2005).

¹³⁹ NATO Press Release, *Prague Summit Declaration* (2002)¹²⁷, November 21, 2002, par. 3, 4, <http://www.nato.int/docu/pr/2002/p02-127e.htm> (accessed January 4, 2005).

¹⁴⁰ NATO, NATO Library, *The Prague Summit and NATO's Transformation* (Brussels: NATO Public Diplomacy Division, 2003), p. 26.

- strategic air and sea lift;
- air-to-air refueling;
- deployable combat support and combat service support units.¹⁴¹

Edgar Buckley, NATO Assistant Secretary General for Defense Planning and Operations, explained that the new initiatives differed from the DCI in three areas. Initially, the PCC was more focused on the specific areas than the DCI. Secondly, the PCC put a much bigger emphasis on the multinational cooperation and presented the role of specialization. Finally, and it was the most remarkable difference, while the DCI included agreements by all of the Allies and held them responsible for all 58 items listed, the PCC included agreements by individual nations that they would implement specific areas themselves. For DCI, every member agreed to do everything, which meant, in the end, no member agreed to do anything. However, the PCC identified which member agreed to do what capabilities, therefore the implementation of the process for each member could be monitored and if any divergence from the commitments of members were perceived, then NATO could draw attention to the relevant Heads of State and Government.¹⁴² Based on these principles, NATO members agreed to improve continuing shortcomings in capabilities:

We will implement all aspects of our Prague Capabilities Commitment as quickly as possible. We will take the necessary steps to improve capabilities in the identified areas of continuing capability shortfalls. ... [N]oting that in many cases additional financial resources will be required, subject as appropriate to parliamentary approval. We are committed to pursuing vigorously capability improvements.¹⁴³

The PCC encouraged European Allies to focus on the critical combat shortfalls recognized by NATO military authorities. Some European Allies took a leading role to accomplish capability commitments on the basis of multinational cooperation. Robertson summarized several efforts to fill shortfalls through multinational efforts:

¹⁴¹ NATO Press Release, *Prague Summit Declaration* (2002)127, November 21, 2002, par. 4c, <http://www.nato.int/docu/pr/2002/p02-127e.htm> (accessed January 6, 2005).

¹⁴² Video Interview with Edgar Buckley, Assistant Secretary General (ASG) for Defense Planning and Operations, NATO Headquarters, December 6, 2002, <http://www.nato.int/multi/video/2002/v021206/v021206a.htm> (accessed January 4, 2005).

¹⁴³ NATO Press Release, *Prague Summit Declaration*, November 21, 2002, par. 4c, <http://www.nato.int/docu/pr/2002/p02-127e.htm> (accessed January 6, 2005).

- Germany agreed to lease C-17 transport aircraft as an interim measure and lead a consortium of nations aimed at pooling airlift resources and capabilities;
- Canada, France, Italy, the Netherlands, Spain, and Turkey were individually committing to buy UAVs;
- The Netherlands was leading a consortium with Canada, Denmark, Belgium, and Norway to pool purchases of precision-guided munitions; Spain and the Netherlands were buying munitions for SEAD;
- Denmark and Norway were contributing to air-to-air refueling and Spain was leading a consortium of nations interested in pooling their refueling capabilities;
- Norway and Germany have committed to improving maritime counter-mine capabilities; and
- Poland and Hungary were improving nuclear, chemical, and biological identification and defense capabilities.¹⁴⁴

a. Delivering On the PCC

Allies made 409 commitments to improve capabilities at the Prague Summit, in agreement with the planned timetable on specific areas.¹⁴⁵ Despite the intentions to implement the initiatives in a short and medium term, Buckley stated that these initiatives would take time to get into service and that would make it a naturally long-term project. Thirty percent of the commitments could be implemented approximately by 2005 and half of the commitments should be put into effect before 2007 or 2008.¹⁴⁶ If the Allies can achieve their commitments, NATO - in particular the European Allies - can play a more effective role in meeting the new challenges. The Prague Summit demonstrated that Allies learned the lessons of previous initiatives and they pledged specific improvements in key military capabilities such as strategic lift, air refueling, PGMs, AGS, SEAD, and nuclear, biological and chemical defense. For the first time, these pledges came with specific timelines for development.¹⁴⁷

¹⁴⁴ U.S., White House Press Release, *NATO: Building new capabilities for new challenges*, Washington D.C., November 21, 2002, <http://www.whitehouse.gov/news/releases/2002/11/20021121-6.html> (accessed January 16, 2005).

¹⁴⁵ NATO, NATO Library, *The Prague Summit and NATO's Transformation* (Brussels: NATO Public Diplomacy Division, 2003), p. 26.

¹⁴⁶ Video Interview with Edgar Buckley, Assistant Secretary General (ASG) for Defense Planning and Operations, NATO Headquarters, December 6, 2002, <http://www.nato.int/multi/video/2002/v021206/v021206a.htm> (accessed January 6, 2005).

¹⁴⁷ NATO Speeches, *NATO after the Prague Summit*, NATO Secretary General Lord Robertson at the Konrad Adenauer Stiftung, December 12, 2002, <http://www.nato.int/docu/speech/2002/s021212a.htm> (accessed January 6, 2005).

In June 2003, the NAC in a Defense Ministers' Session declared that there had been significant progress in the implementation of the PCC. The Allies had made good efforts to incorporate their commitments into national plans and they were willing to the improvements. In addition, it was substantial progress that European Allies, along with various created groups, had signed letters of intent to cooperate on the development of particular capabilities and the importance of multinational role sharing was emphasized, both to reduce the affordability concerns and to increase the effectiveness and interoperability of the Allies.¹⁴⁸

b. Deploying NATO Forces

While the overall PCC had great importance, some of the capabilities were crucial to concentrate on. PCC would get NATO forces into the theater of operations, sustain these forces as long as necessary, and enable them to carry out strike operations precisely, while protecting NATO forces against a full spectrum of potential threats.¹⁴⁹ There were notable areas that achieved progress. In the case of deploying NATO forces, equipment and supplies where they are needed, NATO officials stated, at the Prague Summit, that the European Allies committed to a plan to create a strategic airlift fleet, based on a leasing program until the in-service date of A400M, which would operate as NATO AWACS fleet.¹⁵⁰ Germany had taken the lead role in the program, which included eleven members (Canada, the Czech Republic, Denmark, France, Hungary, Luxembourg, Norway, Poland, Portugal and Turkey). A working group made up of representatives investigated the lease options for both the C-17 and An-124, and they proposed a plan for leasing six C-17s and chartering two AN-124s. The Netherlands joined the program and member countries decided to charter the AN-124 for operational airlift capability that would be put in place by 2005.¹⁵¹ However, the airlift group has

¹⁴⁸ NATO Press Release, *Statement on Capabilities Initiative* (2003)66, June 12, 2003, <http://www.nato.int/docu/pr/2003/p03-066e.htm> (accessed January 11, 2005).

¹⁴⁹ John Shimkus, *Alliance-Wide Progress on Meeting The Prague Capability Commitments*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 24, 2004, p. 2, <http://www.nato-pa.int/default.asp?TAB=489> (accessed January 12, 2005).

¹⁵⁰ Luke Hill, "NATO's build-up to Prague," *Jane's Defense Weekly*, November 13, 2002, http://www.janes.com/regional_news/europe/news/jdw/jdw021113_1_n.shtml (accessed January 1, 2005).

¹⁵¹ Julio Miranda Calha, *Reform of NATO Command Structure and the NATO Response Force*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 2003, <http://www.nato-pa.int/default.asp?TAB=365> (accessed January 12, 2005).

repeatedly failed to finance any provisional project and could not achieve much progress. The European Allies signed a contract to acquire A400M strategic airlift and despite the predictions of 2008 or 2009 for the service date, A400M was in the design phase and not expected to enter service before 2012. On the other hand, there was an initial success on another airlift project that the European Airlift Co-ordination Center set up in 2002 to coordinate airlift assets of Germany, Belgium, Italy, the United Kingdom, France and the Netherlands. The Center consolidates the cargo of member countries and that prevents many empty return flights of member countries and provides financial savings.¹⁵² However, the current situation presents itself such that the European Allies will continue to rely on the four C-17s of the United Kingdom and the U.S. strategic airlift aircraft if the members cannot support an interim combined airlift option financially and politically.

The sealift program, which was decided at the Defense Ministers Meeting on 12 June 2003, achieved much more progress than the airlift program. Norway was the lead country and eleven countries (Canada, Czech Republic, Denmark, France, Greece, Italy, The Netherlands, Portugal, Spain and Turkey) participated in this effort to build strategic sealift capabilities. The goal was to possess between 12 and 14 roll-on/roll-off ships that would be “available for NATO operations on a mix of assured access and full-time charter contracts.”¹⁵³ The outlook was very promising in that the sealift group completion assured access to three roll-on/roll-off ships from Norwegian and Danish commercial shipping companies, and arranged residual capacity of the United Kingdom’s four roll-on/roll-off ships. In addition, the Sealift Co-ordination Center was set up in the Netherlands to consolidate and arrange the equipment transportation of the member countries. Sealift/Airlift Co-ordination Centers prevent the unnecessary duplication of national transportation efforts and more importantly symbolize the European Allies’ commitment to do more to rationalize their defense expenditures.¹⁵⁴

¹⁵² John Shimkus, *Alliance-Wide Progress on Meeting The Prague Capability Commitments*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 24, 2004, <http://www.nato-pa.int/default.asp?TAB=489> (accessed January 12, 2005).

¹⁵³ Julio Miranda Calha, *Reform of NATO Command Structure and the NATO Response Force*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 2003, <http://www.nato-pa.int/default.asp?TAB=365> (accessed January 12, 2005).

¹⁵⁴ John Shimkus, *Alliance-Wide Progress on Meeting The Prague Capability Commitments*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 24, 2004, <http://www.nato-pa.int/default.asp?TAB=489> (accessed January 12, 2005).

Spain led the program to bridge the air-to-air refueling capabilities of European air forces and a letter of intent was signed among nine countries (Belgium, Denmark, Hungary, Italy, Luxembourg, Norway, Poland and Portugal). In the short term, the aim was to acquire 10 to 15 air-to-air refueling aircraft that could be a jointly owned and operated fleet for NATO operations. Participant members have considered all procurement options through leasing or new purchases, but the program has achieved little progress and, at the end of the 2004, still has been investigating the various options to continue the program.¹⁵⁵

c. *Sustaining NATO Forces During Operations*

There are encouraging trends in the field of sustaining NATO forces during operations. AGS is an essential enabling capability for the NRF and it will enhance the military capabilities of the Alliance. In this context, NATO officials declared that the Allies agreed to start the formal design and development phase of the AGS system. AGS acquisition was in a deadlock as a result of transatlantic arguments over a European stake in the radar until the Prague Summit.¹⁵⁶ The National Armaments Directors of the United States and five European Allies signed a "Statement of Intent to Assess a Cooperative Radar Development" which would maximize the exchange of information and technology among the participant members, which overcame one of the obstacles.¹⁵⁷ However, technology sharing has the potential to be a major concern in the AGS program. In spite of the Alliance's decision to form a Cooperative AGS Radar, the United States government guards advanced technologies, whether the United States will release advanced technology including radar and signal processing algorithms for the AGS system is currently under debate between the Alliance and the U.S. DoD.¹⁵⁸ There

¹⁵⁵ Julio Miranda Calha, *Reform of NATO Command Structure and the NATO Response Force*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 2003, <http://www.nato-pa.int/default.asp?TAB=365> (accessed January 12, 2005). See Also John Shimkus, *Alliance-Wide Progress on Meeting The Prague Capability Commitments*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 24, 2004, <http://www.nato-pa.int/default.asp?TAB=489> (accessed January 3, 2005).

¹⁵⁶ Luke Hill, "NATO's build-up to Prague," *Jane's Defense Weekly*, November 13, 2002, http://www.janes.com/regional_news/europe/news/jdw/jdw021113_1_n.shtml (accessed January 1, 2005).

¹⁵⁷ NATO Press Release, *NATO AGS Radar Cooperation Statement of Intent*, (2002)136, November 21, 2002, <http://www.nato.int/docu/pr/2002/p02-136e.htm> (accessed January 12, 2005).

¹⁵⁸ Pierre A. Chao, *NATO AGS – Finally Ready to Fly?* (Washington D.C.: Center for Strategic International Studies, June 24, 2004), p. 8, http://csis.org/europe/040624_NATO_AGSRpt.pdf (accessed January 11, 2005).

was another disagreement of which platform, manned or unmanned, was appropriate for the system. The United States favored a manned aircraft system while European Allies favored the unmanned aircraft system. The National Armaments Directors decided to go forward by designing a program that has both, and the endorsement of the program was left to the Istanbul Summit. The AGS system, like the AWACS system, will be a NATO-owned system which is expected to be fully operational by 2013. Jointly funded and operated, AGS will be the first major NATO procurement since the AWACS program.¹⁵⁹ Despite the obstacles, such as technology sharing and funding structure, the Allies have made progress to fulfill the deficiencies in the process of the AGS system.

There was a growing capability in UAVs across Europe. European aerospace companies cooperated to produce UAVs and related technologies, which indicated the European Allies' interest in UAVs. EADS, Dassault and Saab planned to create a combat UAV for European Allies that would be operational in 2009. Germany has been working on a project to possess the Euro Hawk UAV, which pairs the U.S. Global Hawk UAV with a European-developed electronic intelligence sensor package. This project also demonstrated a remarkable example of transatlantic defense cooperation because the project just tested a new sensor package, and existing platforms such as the U.S. Global Hawk have already been verified under a variety of circumstances. The overall process prevented the duplication of existing platforms and reduced the development of costs and time. The first Euro Hawk is expected to be in service before 2007. France, Italy, Germany and the United Kingdom all built programs with aerospace companies to integrate UAVs into their intelligence, surveillance and reconnaissance capabilities.¹⁶⁰

d. Precision and Force Protection

Pooling of military assets by member states can facilitate the acquisition of needed capabilities in a short period. Belgium, Denmark, the Netherlands, Norway and Portugal decided to create a European expeditionary wing. They signed a memorandum

¹⁵⁹ Pierre A. Chao, *NATO AGS – Finally Ready to Fly?* (Washington D.C.: Center for Strategic International Studies, June 24, 2004), p. 8, http://csis.org/europe/040624_NATO_AGSRpt.pdf (accessed January 11, 2005).

¹⁶⁰ John Shimkus, *Alliance-Wide Progress on Meeting The Prague Capability Commitments*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 24, 2004, pp. 4-5, <http://www.nato-pa.int/default.asp?TAB=489> (accessed January 12, 2005).

of understanding on F-16 cooperation, which will include a multinational expeditionary wing of combat aircraft that will be available to NATO.¹⁶¹ Further progress in the capability of deployed forces was to strike precisely, which required the acquisition of PGMs. The Netherlands, Denmark, Greece, Norway and Portugal decided to expand the procurement program of PGMs for their F-16 fighters, and later the process involved the United Kingdom, France and Germany.¹⁶² In Kosovo, most of the European forces were unable to carry and use PGMs, but European Air Forces have tremendously increased their precision strike capability since then. The United Kingdom selected the Raytheon Paveway IV missile over the JDAM, which was suited to the UK's Tornado, Harrier and Eurofighter, and will be in service in 2007. There was one issue that slowed the further development of the European PGM capabilities. US-made JDAM kits can be locked to the conventional bombs of the European militaries, and that would present the most cost effective means of acquiring PGMs for European Allies, but the United States has not decided how to upgrade and install certain technology and encryption codes to European aircraft.¹⁶³ If the United States comes up with constructive solutions to technology transfer and encryption issues, regarding the U.S. export laws on the sale of the sophisticated armaments abroad, then the European PGM capabilities can be further improved in a cost-effective way.

There was also remarkable progress in protecting deployed NATO forces from a range of potential attacks. In December 2003, the Defense Ministers Meeting assessed the NBC initiatives since the Prague Summit and highlighted considerable progress of Alliance:

A year has passed since the Heads of State and Government endorsed a set of nuclear, biological, and chemical (NBC) weapons defense initiatives [NATO Event Response Team, Alliance Deployable NBC Laboratory, NATO Biological and Chemical Defense Stockpile, Disease Surveillance System, and Centre of Excellence for NBC Weapons Defense]; work on

¹⁶¹ NATO, NATO Library, *Istanbul Summit Reader's Guide*, (Brussels: NATO Public Diplomacy Division, November 2004), p. 51, <http://www.nato.int/docu/rdr-gde-ist/rdr-gde-ist-e.pdf> (accessed January 6, 2005).

¹⁶² Luke Hill, "NATO's build-up to Prague," *Jane's Defense Weekly*, November 13, 2002, http://www.janes.com/regional_news/europe/news/jdw/jdw021113_1_n.shtml (accessed January 1, 2005).

¹⁶³ John Shimkus, *Alliance-Wide Progress on Meeting The Prague Capability Commitments*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 24, 2004, <http://www.nato-pa.int/default.asp?TAB=489> (accessed January 12, 2005).

them is now well advanced, transforming prototypes into Alliance capabilities. The operational fielding of the NBC Analytical Laboratory and the Joint Assessment Team has been accelerated, and the concept for a NATO multinational Chemical, Biological, Radiological, and Nuclear Defense Battalion capability has been developed.¹⁶⁴

The Chemical, Biological, Radiological, and Nuclear (CBRN) Defense Battalion was planned as a multinational unit and SHAPE had prepared the concept of CBRN Defense Battalion. The task of the Multinational CBRN Defense Battalion was to provide a credible NBC capability to deployed NATO joint forces and commands that would both provide freedom of action to Alliance troops and protect Alliance troops from CBRN attacks.¹⁶⁵ The Czech Republic took the leading role in the program and the Battalion involved specialists from 13 members. The CBRN battalion would be ready for operations in line with NRF and would enable the NBC capability to NRF. In June 2004, the commitments of the Alliance demonstrated its results and the CBRN battalion reached full operational capacity. There remained only deployment challenges for the CBRN battalion because the components of the battalion were placed in different locations. If needed, the unit would require strategic airlift to reach the field quickly, which shows the interconnected nature of capabilities. Thus meaningful progress in one area cannot attain the overall objective capabilities unless progress is made in all capabilities.¹⁶⁶

Encouraging progress was achieved for the protection of deployed NATO forces and NATO's entire territory against missile attacks. There was increased missile threat to Alliance territory, forces and population centers, and it was decided to both initiate a NATO missile defense feasibility study and continue to work on an Active Layered Theater Ballistic Missile Defense.¹⁶⁷ There was strong support from most of the

¹⁶⁴ Statement on Capabilities issued at the Meeting of the North Atlantic Council in Defense Ministers Session, (2003)149, December 1, 2003, <http://www.nato.int/docu/pr/2003/p03-149e.htm> (accessed January 6, 2005).

¹⁶⁵ NATO Speeches, *Multinational CBRN Defense Battalion - Progress Report*, Contribution of the Czech Republic's Minister of Defense Miroslav Kostelka to the NATO Defense Ministerial Meeting, December 1, 2003, <http://www.nato.int/docu/speech/2003/s031201c.htm> (accessed January 6, 2005).

¹⁶⁶ John Shimkus, *Alliance-Wide Progress on Meeting The Prague Capability Commitments*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 24, 2004, pp. 6-7, <http://www.nato-pa.int/default.asp?TAB=489> (accessed January 12, 2005).

¹⁶⁷ NATO Press Release, *Statement on Capabilities Initiative* (2003)66, June 12, 2003, <http://www.nato.int/docu/pr/2003/p03-066e.htm> (accessed January 13, 2005).

NATO members and they participated in the TMD project. The aim was to conduct a new Missile Defense Feasibility Study on the basis of the original TMD studies. Two international consortiums, the Science Applications International Corporation (SAIC) group led by SAIC and Boeing, and the JANUS group led by Lockheed-Martin, searched for various options in order to incorporate fragments of existing national TMD projects. In January 2003, the NATO Consultation, Command, and Control Agency (NC3A) evaluated the feasibility reports of two international consortiums. In regards to their recommendations, NATO officials decided to extend the TMD feasibility study for further analysis. At the end of 2003, NC3A decided to study designing a missile defense system with wider coverage than TMD. The NATO Missile Defense system would be tied in with the U.S. Ballistic Missile Defense System and cover NATO's entire territory.¹⁶⁸ In May 2004, Robert G. Bell of SAIC briefed improvements of NATO's Missile Defense at the meeting of the Science and Technology Committee:

NATO's Active Layered Theatre Ballistic Missile Defense (ALTBMD) program passed two important milestones when the Conference of National Armament Directors (CNAD) approved the NATO Staff Requirement for the system, and the Military Committee approved the ALTBMMD Concept of Operations. Following this decision, NATO's top acquisition authorities formally declared their satisfaction with the program logic developed by the NATO Missile Defense Project Group and with the proposed technical solution to meeting NATO's Military Operational Requirement for TMD. With these decisions, the North Atlantic Alliance had moved to implement the decision by NATO Heads of State and Government at the November 2002 Prague Summit to initiate a new NATO Missile Defense feasibility study. ...And, even more crucially, NATO Heads of State and Government meeting in Istanbul must give a solid "push" to this decision-making by unequivocally endorsing the goal of achieving ALTBMMD initial operational capability in 2010.¹⁶⁹

It should be noted that to collect a complete picture of the overall capabilities in the 409 areas of the PCC is difficult without access to classified information on NATO force goals and national defense ministries. However, the

¹⁶⁸ Lothar Ibrugger, *Missile Defense and Weapons in Space*, NATO Parliamentary Assembly, Sub-Committee on the Proliferation of Military Technology, November, 2004, pp. 1-7, <http://www.nato-pa.int/default.asp?TAB=497> (accessed January 13, 2005).

¹⁶⁹ NATO parliamentary Assembly, Committee Summary Meetings, Summary of the Meeting of the Science and Technology Committee, Reduta, Bratislava, Slovakia, May 29, 2004, <http://www.nato-pa.int/default.asp?TAB=517> (accessed January 5, 2005).

European Allies proved at the Prague Summit that they are serious about improving military capabilities by making specific and broad commitments in the areas where they had deficiencies. Along with the capability transformation, the new security environment already called for the Allies' military transformation to be able to tackle the new potential threats to their collective security. Additionally, not only is the PCC process a long-term project but also the transformation of overall military capabilities is a never-ending process for the Alliance. Despite the challenges in some areas, the European Allies made impressive progress either within contributions to the multinational projects or within implementation of essential military modernizations.

2. The NATO Response Force

At the informal meeting of defense ministers in September 2002, the U.S. Secretary of Defense Donald Rumsfeld first proposed the creation of a rapid reaction force. The secretary claimed NATO must have more capable and flexible military force in preparation for the range of future contingencies, and "establishing rapid reaction forces would be a good way for NATO to assure its relevance going forward into the 21st century."¹⁷⁰ As Rumsfeld put it "If NATO does not have a force that is quick and agile, which can deploy in days or weeks instead of months or years, then it will not have much to offer the world in the 21st century."¹⁷¹ Two months later, at the Prague Summit, the Heads of State and Government of NATO agreed to approve the creation of the NRF and decided to develop a comprehensive concept for such a force. The NAC envisioned that the NRF would consist "of a technologically advanced, flexible, deployable, interoperable and sustainable force including land, sea, and air elements ready to move quickly to wherever needed." The Allies called for initial operational capability no later than October 2004 and full operational capability no later than October 2006.¹⁷² The structure of the NRF is as follows:

¹⁷⁰ U.S., Department of Defense, American Forces Information Service, Quoted in Gerry J. Gilmore, *Rumsfeld: NATO, Like U.S., Needs to Transform Its Military*, September 22, 2002, http://www.defenselink.mil/news/Sep2002/n09222002_200209221.html (accessed January 6, 2005).

¹⁷¹ Basic Publications, Quoted in Owen Pengelly, *Rapid Reaction Forces: More Questions than Answers*, January 25, 2003, <http://www.basicint.org/pubs/Notes/2003EU-NATOforcesfin.htm> (accessed January 9, 2005).

¹⁷² NATO Press Release, *Prague Summit Declaration*, November 21, 2002, par. 4a, <http://www.nato.int/docu/pr/2002/p02-127e.htm> (accessed January 2, 2005).

- Consists of units drawn from a pool of land, air and maritime combat forces and to be employed under Combined Joint Task Force (CJTF) Headquarters;
- Supported by NATO's collective assets;
- Trained and equipped to common standards set by the Strategic Commanders;
- Capable of being tailored to different missions, readily deployable on short notice over long distances;
- Combat-ready and technically advanced;
- Capable of fighting in an NBC environment;
- Self-sustainable for a specified period of time.¹⁷³

Regarding its structure, the creation of the NRF is a key element for the transformation of the Allies' force structure and it complements the streamlining of the military command structure and overall capability improvements of NATO members. The reason is that not only combat support but also combat service support will be an integral part of the NRF. All Allies will provide units to the NRF to make it a highly capable and credible multinational force that can address potential contingencies outside NATO's traditional area of operations. Allied contributions to the NRF will include "special forces, nuclear, biological and chemical defense and medical units, as well as supporting air and naval units, logistics, communications, intelligence and whatever else is required." ¹⁷⁴ In this context, the NRF will serve as a catalyst to focus on improvements in the overall European military capabilities, along with the PCC, and the progress in the NRF will reflect the performance of European Allies in carrying out the capability commitments. In June 2003, the concept of the NRF was approved and rotations of the force to serve as a prototype were designated by defense ministers.¹⁷⁵

The NRF will be a high-readiness force that has the ability to begin deployment after receiving a five day notice and it will sustain itself up to 30 days of operations or

¹⁷³ NATO, NATO Library, *The Prague Summit and NATO's Transformation* (Brussels: NATO Public Diplomacy Division, 2003), p. 28.

¹⁷⁴ NATO, NATO Library, *NATO Response Force: Deploying Capabilities Faster and Further than Ever Before* (Brussels: NATO Public Diplomacy Division, May, 2004), <http://www.nato.int/docu/briefing/nrf-e.pdf> (accessed October 16, 2004).

¹⁷⁵ NATO Press Release, *Statement on Capabilities Initiative* (2003)66, June 12, 2003, <http://www.nato.int/docu/pr/2003/p03-066e.htm> (accessed January 6, 2005).

longer if re-supplied. The force will include over 20,000 troops, which are designed not only for high intensity operations but also for less demanding tasks such as various missions in regards to Article-V or non-Article V operations. Once it reaches a fully operational level, it will consist of a land component made up of one brigade combat team with forced entry capability. Additionally, it will have an air component, which will have 72 combat aircraft capable of 200 sorties a day, and a naval component that will include a carrier battle group, an amphibious task group and a surface action group. The CJTF will command those forces with combat support and combat service support capabilities. The NRF will have numerous European forces and be supported with U.S. capabilities in such areas as air-to-air refueling, strategic lift, and ground surveillance, up to the time that European Allies fulfill their capability commitments.¹⁷⁶ Therefore, the NRF will contribute to long-term capability development of the European Allies in cooperation with the PCC. The NRF rotational system was planned as follows:

- NRF 1: 15 October 2003 - end 2003 (Joint Force Command, AFNORTH, in Brunssum, the Netherlands);
- NRF 2: January 2004 - end June (AFNORTH);
- NRF 3: End June 2004 - end 2004 (Joint Force Command, AFSOUTH, in Naples, Italy);
- NRF 4: January 2005 - mid July (AFSOUTH);
- NRF 5: 15 July - end 2005 (Joint Headquarters Lisbon, Portugal);
- NRF 6: January 2006 - mid July (Joint Headquarters Lisbon).¹⁷⁷

The NRF will be under the command of these three headquarters and its rotational system includes a six-month training period, with the force drawn from the entire NATO force structure. After the training program, “the force [will be] certified to the highest standards, especially with regard to capability and interoperability” and the force will be put “on-call” for six months. New forces from the NATO force structure begin a similar training program for six months and will be put “on-call” once the other force component

¹⁷⁶ Julio Miranda Calha, *Reform of NATO Command Structure and the NATO Response Force*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 2003, p. 2, <http://www.nato-pa.int/default.asp?TAB=365> (accessed January 12, 2005).

¹⁷⁷ NATO, The Istanbul Summit Media Guide, *Capabilities*, June 23, 2004, p. 7, <http://www.nato.int/docu/comm/2004/06-istanbul/press-kit/005.pdf> (accessed January 6, 2005).

completes the training cycle.¹⁷⁸ Once the European Allies contribute troops to the NRF, “these units will become recipients of national high-tech reform” that will help upgrade the European Allies. Along with the rotation process, they will “spread their experience and institutional knowledge back to their national forces and ultimately into an Alliance-wide military culture of modernity.”¹⁷⁹ The first rotation began in mid-October 2003 and the Allies’ contribution to the NRF was much more than anticipated. NATO officials expected between 2,500 and 6,000 troops for the force but the total strength of the NRF reached 9,500 in December. Most of the Allies sent troops and the European Allies fulfilled requirements more than planned. Spain (2,200), France (1,700), the United Kingdom (1,700) and Germany (1,110) made the largest contributions.¹⁸⁰ The rest of the troops (2,300) for NRF 1 came from a range of other NATO members and the United States only contributed 300 troops, one aircraft, and one ship. The first exercise, dubbed *Allied Response*, was carried out in Turkey and was a specially designed mission the NRF might take in future NATO operations. A Turkish brigade-level headquarters led NRF 1’s land component, and Allied Air Force North and Spain provided the headquarters for its air and maritime components.¹⁸¹ In the first exercise, the NRF was sent to help a fictional country to deal with instability in the wake of a civil war and by “all accounts it was a complex and realistic exercise featuring hostage rescue, non-combatant evacuation, separation of hostile forces and counter-terrorist operations.”¹⁸²

¹⁷⁸ NATO, NATO Library, *NATO Response Force: Deploying Capabilities Faster and Further than Ever Before* (Brussels: NATO Public Diplomacy Division, May, 2004), <http://www.nato.int/docu/briefing/nrf-e.pdf> (accessed October 16, 2004).

¹⁷⁹ Stephen J. Mariano and Brendan Wilson Strategic Insight, *NATO Response Force: Political Deftness, Economic Efficiency, Military Power*, Strategic Insight, Center for Contemporary Conflict, U.S. Naval Post Graduate School, April 1, 2003, <http://www.ccc.nps.navy.mil/si/apr03/europe.asp> (accessed January 6, 2005).

¹⁸⁰ John Smith, *The Development of Response Force in NATO and the EU and the Evolving NATO-EU Relationship*, NATO Parliamentary Assembly, Sub-committee on Future Security and Defense Capabilities, November, 14, 2004, p. 6, <http://www.nato-pa.int/default.asp?TAB=488> (accessed January 6, 2005).

¹⁸¹ Rupert Pengelley, “NATO Transformation – Moving From ‘Useless’ to Usability,” *Jane’s International Defense Review*, January 1, 2004, http://www.janes.com/regional_news/americas/news/idr/idr040106_1_n.shtml (accessed December 1, 2005).

¹⁸² John Smith, *The Development of Response Force in NATO and the EU and the Evolving NATO-EU Relationship*, NATO Parliamentary Assembly, Sub-committee on Future Security and Defense Capabilities, November, 14, 2004, p. 6, <http://www.nato-pa.int/default.asp?TAB=488> (accessed January 6, 2005).

NRF 2 replaced by NRF 1 in January 2004 and a second exercise, named *Allied Action*, was organized in Italy, May 2004.

All NATO members supported these exercises, while contributing various elements to the force structure. The European Allies went on the modernization of their units for more capable and agile force capabilities with the purpose of replacing the heavy mass forces of the Cold War era. By learning from these exercises, in which NRF 1 and NRF 2 served as prototype forces in the initial operating phase, the Allies developed the precise capability requirements from the lessons and they continued to promote improvements for military capabilities in parallel with the elements of the PCC.¹⁸³ The NRF is the center of Allies' military transformation and marked an impressive start with the contribution of the Allies. General James Jones, Supreme Allied Commander Europe (SACEUR), gave an account of Alliance efforts in the direction of a fully operational NRF, "progress made since Prague [is] grounds for optimism. The Alliance ... has brought the NRF from a concept a reality in less than a year – remarkable achievement considering the challenges involved in changing any military organization and culture."¹⁸⁴

3. The NATO Military Command Arrangements

Formerly, NATO command structure was based on a geographic division of responsibilities within Allied Command Europe (ACE) and Allied Command Atlantic (ACLANT), and the structure was designed to fight in place with a fixed contribution of forces based on the Cold War legacy. Additionally, both of the Strategic Commands had largely comparable tasks. However, the static defense needs of the Alliance have reduced in the post-Cold War years and it was essential to recognize for new missions. Major organizational development was necessary in the command structure because parallel staffs worked on similar issues, and reconciling such issues cost additional time and effort without adding much value. Therefore, it was essential to prevent unnecessary duplication in the command arrangements and to make it more flexible to run joint task

¹⁸³ NATO, NATO Library, *NATO Response Force: Deploying Capabilities Faster and Further than Ever Before* (Brussels: NATO Public Diplomacy Division, May 2004) p. 3, <http://www.nato.int/docu/briefing/nrf-e.pdf> (accessed October 16, 2004).

¹⁸⁴ General James L. Jones, *Transforming NATO's Military Structure*, NATO Review Istanbul Summit Special (Brussels: NATO Public Diplomacy Division, June 2004), p. 59, <http://www.nato.int/docu/review/2004/istanbul/2004-istanbul-e.pdf> (accessed January 5, 2005).

force.¹⁸⁵ The decision on a new NATO command structure was important for both strategic effectiveness and remarkable development of the Alliance's military structure since the creation of NATO.

At the Prague Summit, the NATO Heads of State and Government decided to adopt the Alliance's new integrated military command structure, which would provide "a leaner, more efficient, effective and deployable command structure." The structure of the NATO military command was planned to have full capability in meeting the operational requirements for present and future missions. In this context, the NAC stated that the new command "structure will enhance the transatlantic link," and there will be "a significant reduction in headquarters and Combined Air Operations Centers," and the new command arrangements will "promote the transformation of our military capabilities."¹⁸⁶ There will be two strategic commands in the new structure, one is to be operational and the other one is to be functional:

- I. The Allied Command Operation (ACO), located in Belgium
 - Responsible for all NATO military Operations
 - Supported by two Joint Force Commands and another Standing Joint Headquarters
 - Includes land, sea and air components
- II. Allied Command Transformation (ACT), located in the U.S. with a presence in Europe
 - Responsible for continuing transformation of military capabilities and for the promotion of interoperability of the Alliance forces¹⁸⁷

The NATO defense ministers agreed on the new streamlined command arrangements in June 2003, and the implementation of the new structure began with the activation of the two Strategic Commands. The Defense Planning Committee announced

¹⁸⁵ Air Vice-Marshal Andrew Vallance, *A Radically New Command Structure for NATO*, NATO Review Istanbul Summit Special (Brussels: NATO Public Diplomacy Division, June 2004), pp. 64-56, <http://www.nato.int/docu/review/2004/istanbul/2004-istanbul-e.pdf> (accessed January 8, 2005).

¹⁸⁶ NATO Press Release, *Prague Summit Declaration*, November 21, 2002, par. 4b, <http://www.nato.int/docu/pr/2002/p02-127e.htm> (accessed January 5, 2005).

¹⁸⁷ NATO, NATO Library, *The Prague Summit and NATO's Transformation*, (Brussels: NATO Public Diplomacy Division, 2003), p. 29.

the “streamlined structure will be more effective, and is expected to yield cost and manpower savings which can be channeled to addressing existing Alliance shortfalls.”¹⁸⁸

Allied Command Operation: On June 2003, Jones announced that ACE was officially renamed ACO and the change demonstrated the decisiveness of commitments in the transformation process of the Alliance. ACO was designed to embrace all NATO commands in Europe and it also included the areas of responsibility of the former SACLANT, which was decommissioned. SACEUR retained the Strategic Command and became responsible for the preparation and conduct of all NATO missions.¹⁸⁹ Some commands have been or will be consolidated within the new structure. The total number of headquarters will decline from 20 in 2003 to 11 in the next few years. SHAPE remained the operation center of NATO at the strategic command level and the number of the headquarters under SHAPE significantly streamlined with a reduction in the number of regional headquarters from 11 to 3 operational subordinate commands (Joint Forces Headquarters North/South/West) located in the Netherlands, Italy and Portugal.¹⁹⁰ The CJTFs’ command structure is flexible and offers military commanders services from various member countries to get specific and suitable requirements of a particular military operation.¹⁹¹

Two standing Joint Force Commands in the Netherlands and Italy can “conduct operations from their static locations or provide a land-based” CJTF headquarters, and the third standing Joint Headquarters in Portugal which was still robust but more limited, can provide a deployable sea-based CJTF Headquarters for NATO operations. The number of the Joint Force Component Commands (JFCCs) was reduced from 13 to 6 operational subordinate commands that can be used in any operation while providing

¹⁸⁸ NATO Press Release, Final Communiqué, Ministerial Meeting of the Defense Planning Committee and the Nuclear Planning Group held in Brussels, (2003)64, June 12 2003, <http://www.nato.int/docu/pr/2003/p03-064e.htm> (accessed January 5, 2005).

¹⁸⁹ NATO, SHAPE, *A New Name for Allied Command Europe (ACE): Allied Command Operations (ACO)*, September 1, 2003, <http://www.nato.int/shape/news/2003/09/i030901.htm> (accessed January 11, 2005).

¹⁹⁰ Julio Miranda Calha, *Reform of NATO Command Structure and the NATO Response Force*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 2003, p.2, <http://www.nato-pa.int/default.asp?TAB=365> (accessed January 12, 2005).

¹⁹¹ NATO, NATO Library, “Strengthening Defense Capabilities,” in *NATO Transformed* (Brussels: NATO Public Diplomacy Division, May 2004), p. 10.

“service-specific - land, maritime, or air - expertise to the operational level.” In addition to these component commands, the number of the Combined Air Operation Centers (CAOCs) decline to six and was comprised of two deployable and four static CAOCs.¹⁹²

It was a difficult political challenge to reduce the number of headquarters, but the Allies agreed to perform these difficult choices to have better command structure that could overcome the challenges of deploying combined and joint military forces.¹⁹³ The results from these changes were impressive. Overlapping and confusing lines of authority were clarified since the ACO retained the control of all NATO operations. The new command structure offered a clear division of labor between the ACO and the ACT. ACO defined the essential standards that the NATO force structure must have “to be included for service in a NATO command” and ACT identified and developed the training process for NATO units. Streamlining of the NATO Command structure is an ambitious transformation in fulfilling the missions. Jones described it as a remarkable reform of the Allies:

By vesting all operational responsibilities in one command and focusing the second strategic command on the challenges of on-going transformation and improving the interoperability of member nations, NATO has postured itself for continuous transformation to meet the ever-evolving challenges of today's security environment.¹⁹⁴

Allied Command Transformation: The most significant milestones in the process of implementing the new NATO command structure were the establishment of the ACT on 19 June 2003 in Norfolk, Virginia, which was formerly SACLANT. The role of the ACT “will be to promote transformation and interoperability of Alliance militaries in order to ensure NATO's forces are trained and structured to meet the challenges of the new security environment.” ACT was also co-located with the U.S. JFCOM, not only to improve the transatlantic link, but also to facilitate close interaction between the U.S.

¹⁹² NATO, SHAPE, *New Command Structure*, May 4, 2004, http://www.nato.int/shape/issues/ncs/ncs_index.htm (accessed January 3, 2005).

¹⁹³ U.S., White House, Fact Sheet, *NATO: Building New Capabilities for New Challenges*, Washington D.C., November 21, 2002, <http://www.whitehouse.gov/news/releases/2002/11/20021121-6.html> (accessed January 5, 2005).

¹⁹⁴ General James L. Jones, Military Matters, *Transforming NATO's Military Structure*, NATO Review, Spring 2004, <http://www.nato.int/docu/review/2004/issue1/english/military.html> (accessed January 16, 2005).

transformation efforts and the European Allies¹⁹⁵ with the intention that it could lead the military transformation of Alliance forces in compatible ways. At the ACT establishment ceremony, Robertson noted the positive evolution of the command structure:

[Allied military capability] transformation ... has already begun, and the establishment of this Command – ACT – is proof positive. ACT will shape the future of combined and joint operations. It will identify new concepts, and bring them to maturity. It will then turn these transformational concepts into reality; a reality shared by the entire NATO Alliance. ... This Command underscores NATO nations' commitment to a continuous, permanent process of transforming and modernizing our armed forces.¹⁹⁶

ACT is the appointed forcing agent for the development of doctrine and training in Alliance military capabilities, which also augments the pace of technological progress. There was a widening capabilities gap exclusively in terms of equipment and technology between the United States and European Allies, however military capability includes education, training and a doctrine for effective war fighting capability. The United States already has all these structures which should have transformed the European militaries.¹⁹⁷ The key point for ACT is that it also can bridge the capabilities gap between the United States and European Allies by coordinating “training and doctrine as well as the use of transformational technology.”¹⁹⁸ In this context, training and doctrines will take advantage of the new technologies and capabilities in order to reinforce war-fighting capability as a combined and joint force. Furthermore, the ACT will provide coherence to the individual nation programs and the results will bring together NATO agencies and

¹⁹⁵ NATO, NATO Update, *New NATO Transformation Command Established*, June 18, 2003, <http://www.nato.int/docu/update/2003/06-june/e0618a.htm> (accessed January 14, 2005).

¹⁹⁶ NATO Speeches, Remarks by the NATO Secretary General Lord Robertson at the ceremony to the Commission of the New Allied Command Transformation, June 19, 2003, <http://www.nato.int/docu/speech/2003/s030619a.htm> (accessed January 17, 2005).

¹⁹⁷ Christopher Bennett, Interview with Admiral Ian Forbes, “In the Wake of Iraq,” *NATO Review*, no. 2, (Summer 2003), <http://www.nato.int/docu/review/2003/issue2/english/interview.html> (accessed January 19, 2005).

¹⁹⁸ Julio Miranda Calha, *Reform of NATO Command Structure and the NATO Response Force*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 2003, p. 2, <http://www.nato-pa.int/default.asp?TAB=365> (accessed January 12, 2005).

national programs to ensure the infusion of research and technology for Alliance long-term capability shortfalls.¹⁹⁹

The transformation process of NATO's capabilities included five main pillars under the ACT: Strategic Concepts, Policy, and Interoperability (SCPI), Defense Planning (DP), Future Capabilities Research and Technology (FCRT), Joint Education and Training (JET), and Joint Experimentation, Exercises and Assessment (JEEA). All main pillars work together to identify and implement transformational strategies essential for Alliance capabilities. SCPI is responsible for the development of strategic policy, concepts and vision to overcome concerns and provide interoperability. DP identifies the needed capabilities and aims to develop innovative capabilities for the force structure of the Allies. FCRT coordinates and manages both NATO's research and technology initiatives for the ongoing transformation. JET provides the education and training of the overall NATO force structure. Lastly, JEEA is responsible for delivering joint war-fighting experiments and assessment on concepts, capabilities and procedures in order to strengthen the transformation process.²⁰⁰ The basic tasks of transformation are both to accelerate capability development and to ensure interoperability. However, the implementation process contains details in areas that will provide vast contributions to the European Allies force structure.²⁰¹ Since its establishment in June 2003, ACT has delivered a number of products to improve Alliance capabilities

- SCPI: created the long term strategic vision for member nations for guiding transformation of forces, development of NATO Network Enabled Capability for information superiority, development of NATO Intelligence Transformation Plan in gathering, sharing and managing the intelligence among NATO members.
- DP: developed NATO Force Goals, provided consultancy on request of NATO members for their defense review.
- FCRT: established effective links with all the National Armaments Groups, established the Technology Advisory Board –providing links among the Main

¹⁹⁹ Interview with Admiral Edmund P. Giambastiani NATO Supreme Allied Commander Transformation, "On the Eve of Istanbul," *NATO Review*, no. 2, (Summer 2004), <http://www.nato.int/docu/review/2004/issue2/english/interview.html> (accessed January 14, 2005).

²⁰⁰ ACT Command Briefing, *A New Day Ahead - A New Way Ahead*, 2004, www.act.nato.int/multimedia/facts/actcmdbriefv1.19.ppt (accessed January 25, 2005).

²⁰¹ Air Vice-Marshal Andrew Vallance, *A Radically New Command Structure for NATO*, NATO Review Istanbul Summit Special (Brussels: NATO Public Diplomacy Division, June 2004), p. 66, <http://www.nato.int/docu/review/2004/istanbul/2004-istanbul-e.pdf> (accessed January 5, 2005).

Armament Groups, the Research Technology Organization Panels, NATO Consultation, Command and Control Agency, NATO Underwater Research Centre, developed long term capability requirements recognized as a prioritized reference for Alliance future requirements to facilitate integration of current and future capabilities as mandated by the PCC.

- JET: provided training and education packages for NRF, took forward Allied reach top strategic issues to NRF, conducted pre-deployment and mission rehearsals for NATO HQs, prepared and supported NRF and CJTF exercises.
- JEEA: conducted ambitious NATO experimentation program, and developed friendly forces tracking and situation awareness capability.²⁰²

In addition to the five main pillars in NATO's transformation, ACT's three regional centers were established in Europe. In October 2003, The Joint Warfare Centre (JWC) was established in Norway. The JWC conducts training for the commanders of the NRF and other NATO operational headquarter staff in light of lessons learned from ongoing operations.²⁰³ In addition it conducts combined training, analysis and doctrine development in order to improve NATO's capabilities and interoperability.²⁰⁴ The Joint Force Training Centre (JFTC) located in Poland has a distinct and unique role, focusing on joint and combined training at the tactical level, which was one of the key areas of weakness identified in the Operation Iraqi Freedom. JFTC assists ACT and ACO while managing the training of all Alliance forces in order to improve joint tactical interoperability among NATO forces.²⁰⁵ The final command structure under ACT is the Joint Analysis Lessons Learned Center (JALLC) activated in Portugal. It is NATO's central agency for the analysis of all military operations, training and exercises. JALLC acts as a coordinating agency between centers while compiling the lessons-learned from each operation and center. JALLC also ensures that appropriate remedial action is rapidly

²⁰² ACT Command Briefing, *A New Day Ahead - A New Way Ahead*, 2004, www.act.nato.int/multimedia/facts/actcmdbriefv1.19.ppt (accessed January 25, 2005).

²⁰³ Interview with Admiral Edmund P. Giambastiani NATO Supreme Allied Commander Transformation, "On the Eve of Istanbul," *NATO Review*, no. 2, (Summer 2004), <http://www.nato.int/docu/review/2004/issue2/english/interview.html> (accessed January 10, 2005).

²⁰⁴ NATO, ACT Missions, *Fact Sheet: Joint Warfare Centre* (Virginia: Supreme Allied Commander Transformation Public Information Office), http://www.act.nato.int/multimedia/facts/act_jwc_fact_sheet.pdf (accessed January 15, 2005).

²⁰⁵ NATO, ACT Missions, *Fact Sheet: Joint Force Training Centre* (Virginia: Supreme Allied Commander Transformation Public Information Office), <http://www.act.nato.int/multimedia/facts/actjftcxfactsheet.pdf> (accessed January 15, 2005).

implemented by the NATO force structure.²⁰⁶ Members of the JALLC are currently deployed into Afghanistan and Kosovo with NATO forces to feed the training process back to Alliance militaries.²⁰⁷

In summary, the new NATO command structure has achieved considerable progress in the capability transformation process. Both ACO and ACT provides better coordination and flexibility for Alliance forces, which was one of the most vital issues regarding interoperability concerns. Capability transformation is an ongoing process and the new command structure was a significant development for the Alliance. This proved that the Alliance, in particular European members, is heading in the right direction to have a more efficient force structure for the full range of NATO missions.

D. THE ISTANBUL SUMMIT: THE NEXT STEPS

Since the creation of NATO, the Alliance has held 17 Summits in which seven followed were after the Cold War. The frequency of the summits are much greater than before, which demonstrates how the pace of change has accelerated in response to a rapidly evolving strategic environment, and that the capability transformation of members must have the same acceleration to shape the new security environment.²⁰⁸ In Prague, NATO agreed to transform military capabilities and this long-term endeavor continues to equip the Alliance with key capabilities. The Istanbul Summit gave further shape and direction to the transformation process in order to have an effective force structure that can perform a full range of operations and can respond to its operational commitments while meeting challenges.²⁰⁹

1. PCC, AGS and NATO TMD/MD Architecture

At Istanbul, the NATO defense ministers assessed the progress made since the Prague Summit. They took decisions for further improvements in transforming

²⁰⁶ NATO, ACT Missions, *Fact Sheet: Joint Analysis Lessons Learned Centre* (Virginia: Supreme Allied Commander Transformation Public Information Office), http://www.act.nato.int/multimedia/facts/act_jallc_fact_sheet.pdf (accessed January 15, 2005).

²⁰⁷ Interview with Admiral Edmund P. Giambastiani NATO Supreme Allied Commander Transformation, "On the Eve of Istanbul," *NATO Review*, no. 2, (Summer 2004), <http://www.nato.int/docu/review/2004/issue2/english/interview.html> (accessed January 5, 2005).

²⁰⁸ Jaap de Hoop Scheffer, "Anticipating Istanbul," *NATO Review*, no. 2, (Spring 2004), <http://www.nato.int/docu/review/2004/issue2/english/art1.html> (accessed January 3, 2005).

²⁰⁹ NATO Press Release, *Istanbul Summit Communiqué*, (2004)096, June 28, 2004, <http://www.nato.int/docu/pr/2004/p04-096e.htm> (accessed January 19, 2005).

capabilities and gave directions for additional efforts in this regard.²¹⁰ The implementation of the PCC demonstrated tangible results and European Allies signed multinational projects such as strategic airlift, strategic sealift and air-to-air refueling. The European Allies continue to enhance their capability commitments by either national or multinational projects through pooling. In the case of AGS, the program has been accelerated when CNAD endorsed plans to go forward with the TIPS proposal. Based on that decision, a two year design and development phase of AGS was opened and the Alliance would decide to sign a contract with TIPS by 2005.²¹¹ This decision leads to the acquisition of the AGS core in 2006 and it is expected to acquire initial operational capability by 2010. Ground surveillance support for the NRF structure will be provided by the United States and the United Kingdom for the interim period within their national capabilities until the acquisition of the AGS system.²¹²

To strengthen the ALTBM program, which had moved a significant distance since the Prague Summit, and NATO Heads of Government and State approved developing an extended Missile Defense (MD) structure:

[We] directed that work on theatre ballistic missile defense be taken forward expeditiously. In this context we noted the approval of the principle of the establishment of a NATO Active Layered Theatre Ballistic Missile Defense program; welcomed the willingness of nations to make the tri-national Extended Air Defense Task Force available to the Alliance; and noted ongoing work by the NATO Military Authorities in relation to the defense of deployed NATO forces, including the NRF, against theatre ballistic missiles.²¹³

NATO's MD system will likely include low-tier and up-tier defenses. There are currently national and cross-national TMD projects that are in progress. The United States, Germany, France, Italy, the Netherlands, Spain and Turkey are working to improve MD

²¹⁰ NATO Press Release, Press Statement for the Meeting of the North Atlantic Council in Defense Ministers Session, (2004)100, June 27, 2004, <http://www.nato.int/docu/pr/2004/p04-100e.htm> (accessed January 11, 2005).

²¹¹ NATO Press Release, *Istanbul Summit Communiqué* (2004)096, June 28 2004, <http://www.nato.int/docu/pr/2004/p04-096e.htm> (accessed January 22, 2005).

²¹² John Shimkus, *Alliance-Wide Progress on Meeting The Prague Capability Commitments*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 24, 2004, pp. 5-6, <http://www.nato-pa.int/default.asp?TAB=489> (accessed January 12, 2005).

²¹³ NATO Press Release, *Istanbul Summit Communiqué* (2004)096, June 28 2004, <http://www.nato.int/docu/pr/2004/p04-096e.htm> (accessed January 19, 2005).

systems that are expected to serve as components of a planned NATO layered TMD. The various elements of NATO's MD/TMD are at different development stages.

- The low-tier range includes:
 - Patriot PAC-2 and PAC-3 projects (United States/Germany/the Netherlands/Turkey);
 - Mobile MEADS project (Germany/Italy/United States);
 - Aster (or SAMP/T) TMD project (France/Italy),
- The upper-tier range is represented by:
 - THAAD (Theatre High-Altitude Area Defense) project (US Army);
 - Navy Theatre-Wide Ballistic Missile Defense project incorporating AEGIS and SM-3 Block II programs (US Navy).²¹⁴

The acquisition decision for a joint MD system is expected by 2006; however potential concerns might cause delays in the process. In the case of strategic concerns, the Allies pursue divergent missile defense programs. The United States is determined to go with a layered system against a long-range missile attack but European Allies are primarily concerned in protecting deployed forces against a short-range missile attack. Besides, the feasibility and cost of missile defense can also hamper the program because an expended missile defense will increase the cost of the program and it is not much higher on the capabilities list of European Allies in regards to the their respective defense budget and other primarily needed capabilities. Furthermore, U.S. export regulations on technologies might also slow down the progress. However, the United States is investigating ways to liberalize export controls on missile technology transfers to the European Allies, which would facilitate NATO deployment of missile defense and accelerate the program.²¹⁵

2. NRF Moves Forward

At the Istanbul Summit, the command of the NRF changed from JFC Allied Forces Northern Europe in the Netherlands to JFC Allied Forces Southern Europe in Italy

²¹⁴ Lothar Ibrugger, *Missile Defense and Weapons in Space*, NATO Parliamentary Assembly, Sub-Committee on the Proliferation of Military Technology, November, 2004, pp. 7-8, <http://www.nato-pa.int/default.asp?TAB=497> (accessed January 23, 2005).

²¹⁵ Ian Davis, *NATO and Missile Defense: Stay Tuned This Could Get Interesting*, BASIC Publications (Washington D.C.: The British American Security Information Council, June 30, 2004), <http://www.basicint.org/pubs/Notes/2004NATOMissileDefense-IstanbulSummit.htm> (accessed January 19, 2005).

as planned, which marked another major step forward in the transformation process. At the NRF change of command ceremony, NATO Secretary General Jaap de Hoop Scheffer analyzed the progress and benefits of the NRF concept:

This ceremony today marks another milestone in the transformation of NATO. When its initial operational capability is achieved in four months, this will mark another step-change in its evolution. ...[s]peed is clearly the NRF's hallmark. The NATO Response Force is at the centre of the Alliance's military transformation. It not only gives us a high readiness and deployable force in which all the Allies will engage together. It is also a hothouse in which advanced technologies and doctrines flourish. And because all Allies have the possibility of contributing forces to the NRF, the benefits will flow throughout the Alliance.²¹⁶

Four months later, the NRF reached its initial operational capability in October 2004, a step that was announced during the informal meeting of the defense ministers in Romania. The NRF was ready for the full spectrum of NATO operations when and where NAC decides to use it.²¹⁷ NRF 4 replaced NRF 3 in January 2005 under the command of JFC in Italy and consequently, four prototype rotations of the NRF activated and were used for force structure improvements. The European Allies supported this rotational system and the total strength of the NRF reached 17,000 troops. Since the launch of the NRF, standards and procedures have been developed for the certification of the NRF that included "long term sustainment, improvement of the overall capability, capabilities and readiness." As the different forces have been rotated through the NRF, these high standards were applied and the transformational process increasingly spread across the full structure of the European Allies' forces. Currently, NRF 4 has the ability to conduct many of the mission types envisioned in the NRF military concept.²¹⁸ Elements of the NRF were used to help guarantee the security of the Olympic Games held in Greece and a unit from the NRF provided a short-term reinforcement for the security of the elections in Afghanistan. The NRF will be ready to conduct a variety of NATO operations,

²¹⁶ NATO Speeches, Remarks by NATO Secretary General, Jaap de Hoop Scheffer at the NATO Response Force (NRF) Change of Command Ceremony, Istanbul, Turkey, June 27, 2004, <http://www.nato.int/docu/speech/2004/s040627b.htm> (accessed January 23, 2005).

²¹⁷ NATO, NATO Update, *Response Force Ready for Missions*, October 13, 2004, <http://www.nato.int/docu/update/2004/10-october/e1013a.htm> (accessed January 19, 2005).

²¹⁸ NATO, NATO Library, *NATO Response Force: Deploying Capabilities Faster and Further than Ever Before* (Brussels: NATO Public Diplomacy Division, January 2005), pp. 2, 3, <http://www.nato.int/docu/briefing/nrf-e.pdf> (accessed February 3, 2004).

including Article V or non-Article V missions, when it reaches full operational capability.²¹⁹

3. The Defense Planning Process

NATO's military transformation in capabilities not only means having better military hardware but also "deployability" and "usability" of the forces. In this regard, better force generation and force planning procedures are crucial.²²⁰ NATO missions demand the right capabilities at the right time from NATO members, therefore the link between the force planning and force generation can make the process relevant, predictable and useful for Allied commanders and national resource planners.²²¹

Missions such as Afghanistan revealed completely new challenges in terms of generating forces, which were already far from optimal. Scheffer announced the Alliance have to improve this system so that NATO can meet future challenges more efficiently:

These challenges can be big – a new headquarters, an operational reserve. But they can also be small – a medical facility, a handful of C-130's and medium lift helicopters, a couple of infantry companies, and certain surveillance and intelligence assets. Given the vast quantities of personnel and equipment available to the Alliance overall, we have to ask ourselves why we still cannot fill them. What is wrong with our system that we cannot generate small amounts of badly needed resources for missions that we have committed to politically?²²²

Disconnect between the long-term force planning system and the way of generating forces for particular operations presented shortcomings and deficiencies. The link between these processes and defining concrete targets for deployability and usability of NATO forces will provide greater clarity for the NATO force structure. First, it will

²¹⁹ NATO Speeches, Press Conference on the NATO Response Force (NRF) by NATO Secretary General Jaap de Hoop Scheffer and General Supreme Allied Commander Europe (SACEUR) James L. Jones, Poiana, Brasov, Romania, October 13, 2004, <http://www.nato.int/docu/speech/2004/s041013b.htm> (accessed January 19, 2005).

²²⁰ NATO Speeches, *Projecting Stability*, Speech by NATO Secretary General, Jaap de Hoop Scheffer at the conference "Defending Global Security: The New Politics of Transatlantic Defence Co-operation" organised by the New Defence Agenda, Palais d'Egmont, Brussels, May 17, 2004, <http://www.nato.int/docu/speech/2004/s040517a.htm> (accessed January 9, 2005).

²²¹ Interview with Admiral Edmund P. Giambastiani NATO Supreme Allied Commander Transformation, "On the Eve of Istanbul," *NATO Review*, no. 2, (Summer 2004), <http://www.nato.int/docu/review/2004/issue2/english/interview.html> (accessed January 10, 2005).

²²² NATO Speeches, NATO's Istanbul Summit: new mission, new means, Speech by NATO Secretary General Jaap de Hoop Scheffer at the Royal United Services Institute, London, June 18, 2004, <http://www.nato.int/docu/speech/2004/s040618a.htm> (accessed January 22, 2005).

provide a clear understanding what nations have the ability and are willing to match these targets, and secondly it will present more predictability about what forces NATO will have available when decided to carry out an operation.²²³ In this context, the formal decision to reform force generation and planning procedures was adopted at the Istanbul Summit and defense ministers approved “new NATO Force Goals for individual Allies to guide the development of their forces up to 2010 and beyond. They also approved proposals for a revised force planning process.”²²⁴

The national commitments pointed out in the Force Goals were smaller than before and the Alliance agreed on more focused capabilities needed for today’s operations.²²⁵ These measures involved medium and long-term targets and will increase the availability and usability of Alliance member armed forces.²²⁶ In addition, the reforms in the defense planning process will help individual countries to identify how much force structure is antiquated and tied down to territorial defense and which can be eliminated or are truly not useful for the operations of NATO. These eliminations will provide long term savings and the Allies can use these savings for reinvestment goals in capabilities such as communications, lift, and other elements that are needed for modern operations.²²⁷

The European Allies have nearly two million active duty personnel in the armed forces, however fewer than 100,000 of them are available for operations.²²⁸ At the Istanbul Summit, the NAC decided to have 40 percent of ground forces truly deployable,

²²³ NATO Speeches, NATO's Istanbul Summit: new mission, new means, Speech by NATO Secretary General Jaap de Hoop Scheffer at the Royal United Services Institute, London, June 18, 2004, <http://www.nato.int/docu/speech/2004/s040618a.htm> (accessed January 22, 2005).

²²⁴ NATO Press Release, Press Statement for the Meeting of the Defense Planning Committee in Ministerial Session in Istanbul, (2004)101, June 27, 2004, <http://www.nato.int/docu/pr/2004/p04-101e.htm> (accessed January 19, 2005).

²²⁵ U.S., Department of Defense, News Transcript, *NATO Summit Background Briefing*, June 28, 2004, <http://www.defenselink.mil/transcripts/2004/tr20040628-0946.html> (accessed January 5, 2005).

²²⁶ NATO, NATO Library, *Istanbul Summit Reader's Guide*, (Brussels: NATO Public Diplomacy Division, November 2004), p. 61, <http://www.nato.int/docu/rdr-gde-ist/rdr-gde-ist-e.pdf> (accessed January 23, 2005).

²²⁷ U.S., Department of Defense, News Transcript, *NATO Summit Background Briefing*, June 28, 2004, <http://www.defenselink.mil/transcripts/2004/tr20040628-0946.html> (accessed January 9, 2005).

²²⁸ International Information Programs, State's Bradtke testifies on the U.S. goals for NATO Istanbul Summit, *Agenda: NATO Operations, Engagement with Partners Capabilities*, June 16, 2004, <http://tokyo.usembassy.gov/e/tp-20040617-02.html> (accessed January 19, 2005).

with 8 percent of them ready for deployment at any time. It indicated that European Allies committed to restructure their armed forces to reach the force structure of 40 percent deployability and 8 percent sustainability. European Allies are still working to meet these goals.²²⁹ Significant improvements in defense planning and the force generation process as a key driver of ongoing transformation process has demonstrated that Allies continue to enhance operational capabilities of NATO, which will present and ensure more effective military forces and capabilities to fulfill the future NATO operations.

²²⁹ NATO, NATO Library, *Istanbul Summit Reader's Guide*, (Brussels: NATO Public Diplomacy Division, November 2004), p. 61, <http://www.nato.int/docu/rdr-gde-ist/rdr-gde-ist-e.pdf> (accessed January 8, 2005).

IV. CONSTRAINTS ON AND PROSPECTS FOR NATO'S CAPABILITY TRANSFORMATION PROCESS

Capability transformation has seemed to expect NATO members to take on long and difficult tasks because there have been many perspectives outside of the Allies' commitments that have affected the military capability transformation of NATO. The military capabilities of European countries have been at the center of European Security and Defense Policy since the late 1990s. EU members set a military capability target known as the Headline Goal. NATO and EU, with overlapping members, pursued, and still pursue, compatible goals to improve military capabilities. However, there have been considerable factors that either slowed down or reinforced the capability transformation process. This chapter initially examines the European Capability Action Plan in order to present collective efforts of both institutions. Later, the chapter analyzes the defense expenditure of NATO members and concludes by highlighting the constraints and prospects of the capability transformation process.

A. EU AND THE EUROPEAN CAPABILITY ACTION PLAN

Operation Allied Force was considered a milestone in the history of the EU because it was the key factor of official declaration in military capabilities at the Cologne Summit on June 3, 1999. EU Heads of States adopted the principle that the Union must be backed up by credible military force.²³⁰ They agreed to implement the following principles to achieve this objective;

to further develop more effective European military capabilities from the basis of existing national, bi-national and multi-national capabilities, ... to strengthen [their] own capabilities for that purpose, ... to maintain a sustained defense effort, ...[and] to reinforce [their] capabilities in the field of intelligence, strategic transport, command and control.²³¹

In the months following the Cologne Summit, the EU declared an ambitious plan for an independent military capability at the Helsinki Summit on 10 December 1999. The

²³⁰ John E. Peters, et al., *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), pp. 83-84.

²³¹ Maartje Rutten, *From St-Malo to Nice, European Defense: Core Documents* (Paris: Institute for Security Studies of Western European Union, May, 2001), p. 41, <http://www.iss-eu.org/chailot/chai47e.pdf> (accessed February 5, 2005).

Helsinki Headline Goal was announced and it called for European Rapid Reaction Force (RRF), including between 50,000 and 60,000 troops, or up to 15 brigades with appropriate air and naval units. The EU claimed that RRF would be ready by 2003 and it would be deployable within 60 days and sustainable at least for a year in order to carry out all of Petersburg Tasks. EU Military Staff and national defense planning experts established a broad list that fell under seven categories: C3 and intelligence, ISR, deployability and mobility, effective engagement, protection and survivability, sustainability and logistics, and general support, which in total outlined 144 capabilities.²³² EU officials made it clear that the Headline Goal represented a pool of European capabilities that either the EU or NATO could use. Additionally, the EU Heads of States mentioned their intention to create formal links between NATO and EU with the purpose of keeping this process supportive and preventing unnecessary duplication.²³³

1. Post Helsinki Developments

The EU military staff, with the participation of NATO experts, identified a list of requirements regarding the available capabilities at the November 2000 Capabilities Commitments Conference. Nearly 70 percent of the shortcomings were parallel or relevant to the DCI and requirements are needed to upgrade existing assets, investments, development and coordination to improve the capabilities. On a voluntary basis, member states committed to contribute 100,000 personnel, 400 combat aircraft and 100 naval vessels to the RRF.²³⁴ EU military staff concluded that the quantitative Helsinki Goals, in terms of the target number of troops, had been met by the Union. However, they also underlined the inadequacies because there were crucial requirements for qualitative improvements in the areas such as mobility, sustainability and interoperability.²³⁵ By the end of 2001, only five of the major shortfalls had been resolved and there were a

²³² Burkard Schmitt, "European Capabilities," in *EU Security and Defense Policy: The First Five Years (1999-2004)*, ed. Nicole Gnesotto (Paris: EU Institute for Security Studies, 2004), pp. 90-92.

²³³ John E. Peters, et al., *European Contributions to Operation Allied Force* (Santa Monica: RAND Cooperation, 2001), p. 85.

²³⁴ Gustav Lindstrom, *The Headline Goal* (Paris: EU Institute for Security Studies, 2005), p. 3, <http://www.iss-eu.org/esdp/05-gl.pdf> (accessed February 25, 2005).

²³⁵ Jean-Yves Haine, *European Defense: A Proposal for a White Paper* (Paris: EU Institute for Security Studies, May 2004), pp. 53-54.

considerable number of shortfalls to be filled by member states.²³⁶ The next step was to remedy this and make up these shortfalls. Therefore, in November 2001, the Capability Improvement Conference was held to address the capability gaps. Member states identified the challenging areas and the gap between capability requirements to meet the Helsinki Headline Goals and forces practically committed by member states for this process. As a result, considerable shortfalls in national commitments were identified for operational and strategic capabilities under the Helsinki Force Catalogue process. In the light of a comparison of requirements and available capabilities, 42 shortfalls were revealed.²³⁷

Based on revealed shortfalls in national commitments, EU defense ministers launched the European Capability Action Plan (ECAP) at the end of 2001. The ECAP was guided by four principles:

- the improvements of the effectiveness and efficiency of European military capability efforts, enhancing cooperation between member states or groups of member states;
- a “bottom-up” approach to European defense cooperation, relying on voluntary national commitments;
- coordination between EU member states as well as coordination with NATO;
- importance of broad public support through ECAP’s transparency and visibility;²³⁸

In this context, member states set up 19 Working Groups, lead by at least one member state that covered the vast majority of the shortfalls and developed possible short and medium-term solutions for meeting them. The member states responded to this process well and Working Groups prepared potential solutions to achieve additional capabilities. At the Capability Commitment Conference in May 2003, the results of the Working Groups presented to the defense ministers of the EU, and the Helsinki Progress Catalogue was drafted for the second phase of the ECAP.²³⁹ Subsequently, the ECAP

²³⁶ The International Institute for Strategic Studies, “European Defense Forces,” in *Military Balance 2002-2003*, (London: Oxford University Press, 2002), p. 29.

²³⁷ Jean-Yves Haine, *European Defense: A Proposal for a White Paper* (Paris: EU Institute for Security Studies, May 2004), p. 54.

²³⁸ Burkard Schmitt, “European Capabilities,” in *EU Security and Defense Policy: The First Five Years (1999-2004)*, ed. Nicole Gnesotto (Paris: EU Institute for Security Studies, 2004), p. 93.

²³⁹ Assembly of Western European Union, The Interparliamentary European Security and Defense Assembly, *European Defense: Pooling and Strengthening National and European Capabilities – Reply to the Annual Report of the Council*, December 3, 2003, p. 11, http://assembly-weu.itnetwork.fr/en/documents/sessions_ordinaires/rpt/2003/1842.html (accessed February 12, 2005).

shifted from the identification phase to the establishment of Project Groups for the implementation of concrete projects. These projects included solutions through acquisition, leasing, multi-nationalization and role specialization. On the procurement side, Project Groups provided “plans and programs to enable participating member states to implement new capabilities.” On the non-procurement side, the aim of the initiatives was to maximize the effectiveness of the existing and planned capabilities such as improving structures and developing procedures and doctrines.²⁴⁰ The Project Groups focused on the following shortfalls: air-to-air refueling, combat search and rescue, strategic UAVs, NBC protection, headquarters, special operations forces, theatre ballistic missile defense, strategic airlift, interoperability, space, Intelligence, Surveillance, Target Acquisition, and Reconnaissance (ISTAR), strategic sealift, collective medical protection, attack helicopters, and support helicopters. When the member states achieved capability improvements, they planned to the remaining shortfalls.²⁴¹

In November 2003, the EU Council declared that progress was achieved in the context of the ECAP and it proved the determination of the member states in addressing the capability shortfalls. In spite of the bottom-up approach, which was one of the guiding principles of the ECAP and meant all members were responsible for the delivery of the directed capabilities themselves, national willingness may not be enough to fill gaps. Therefore, they agreed on the need “to complement the ECAP with an approach identifying objectives, timelines and reporting procedures” of each Project Group. The aim was to monitor the ECAP progress in close cooperation, and the EU Council recognized that this process would help to bridge the gap between the voluntary basis of Project Group and interests of the EU in light of the “road map” drafted by EU military staff.²⁴²

²⁴⁰ Antonio Missiroli, *From Copenhagen to Brussels, European Defense Core Documents*, (Paris: EU Institute for Security Studies, December, 2003), p. 93, <http://www.ciaonet.org/wps/mia04/mia04.pdf> (accessed February 8, 2005).

²⁴¹ Assembly of Western European Union, *The Interparliamentary European Security and Defense Assembly, European Defense: Pooling and Strengthening National and European Capabilities – Reply to the Annual Report of the Council*, December 3, 2003, pp. 11-12, http://assembly-weu.itnetwork.fr/en/documents/sessions_ordinaires/rpt/2003/1842.html (accessed February 12, 2005).

²⁴² Council of the European Union, *ESDP Presidency Report*, December 9, 2003, pp. 3-4, <http://register.consilium.eu.int/pdf/en/03/st15/st15814.en03.pdf> (accessed January 12, 2005).

3. The 2010 Headline Goal

The EU adopted the European Security Strategy in December 2003 and member states decided to set a new Headline Goal in regards to the evaluation of strategic environment and technology. Operation Allied Force influenced the capability initiatives of the Helsinki Headline Goal, and new threats and challenges of the 21st century drove the 2010 Headline Goal. Building on the Helsinki Headline Goal, the EU recognized that existing shortfalls still needed to be addressed and decided to commit having fully efficient military capabilities by 2010.²⁴³ The new objectives mainly focused on the qualitative capability requirements such as interoperability, deployability and sustainability while making better use of available sources in terms of pooling and sharing assets.²⁴⁴ Member states have identified the following indicative list of specific milestones within the 2010 horizon.

- establishing a civil-military cell within the European Union Military Staff.
- establishing a European Armaments Agency in the field of defense capability development, research, acquisition and armaments (established as the European Defense Agency on 12 July 2004).²⁴⁵
- implementing EU strategic lift joint coordination by 2005 and achieving full efficiency in strategic lift (air, land and sea) by 2010.
- developing a fully efficient European Airlift Command (EAC) for those member states who want to be part of the EAC. (The EAC has declared its service to the EU.)
- completing development of the rapidly deployable EU Battlegroups by 2007.
- ensuring the availability of an aircraft carrier with its associated air wing and escort by 2008.
- improving the performance of all levels of EU operations through appropriate compatibility and network linkage of all communications equipment and assets by 2010.

²⁴³ Council of the European Union, *Headline Goal 2010*, May 17, 2004, pp. 1-2, <http://ue.eu.int/uedocs/cmsUpload/2010%20Headline%20Goal.pdf> (accessed February 12, 2005).

²⁴⁴ Institute for Security Studies, *EU Security and Defense, Core Documents 2004* (Paris: EU Institute for Security Studies, February, 2005), p. 51,111,112, <http://www.iss-eu.org/chailot/cha75e.pdf> (accessed February 2, 2005).

²⁴⁵ The Council of The European Union, *Policies, Security & Defense, European Defense Agency*, http://ue.eu.int/cms3_fo/showPage.asp?id=277&lang=EN (accessed February 3, 2005).

- developing quantitative benchmarks and criteria that national forces declared to the Headline Goal have to meet in the field of deployability and multinational training.²⁴⁶

The progress reports of May and November 2004 mentioned that member states achieved marginal progress since 2003. In addition, it is stated that considerable extra impetus is necessary to improve the capabilities and realize the ambitions committed to the ongoing work of the Headline Goal 2010. Most of the ECAP Project Groups reported that they either almost reached the maximum possible results within the current framework or they were close to reaching results, however the report also identified the work that remained to be done;

Quantitative solutions for capability solutions will be delivered in some cases, but in the medium to longer term. Many ECAP Project Groups have focused their work on important qualitative aspects as doctrine, tactics, procedures, conops, etc. In some areas – such as Headquarters, strategic transport, NBC, Medical – notable progress has been achieved with indications of timelines within which the shortfalls will be remedied. In other capability areas that require substantial investment (such as ISTAR and Space assets) more time is needed to remedy existing shortfalls. A few shortfalls have yet to be addressed.²⁴⁷

In summary, shortfalls in the European capabilities still persist in a number of key areas such as deployability, sustainability, effective engagement and C4ISR in spite of the relative progress. The capability improvements of the European forces encounter structural obstacles that need to be taken into account while making the assessment of progress. Initially, the military expenditure of the European countries presents major concern in which only a few countries have increased their military expenditure. Besides, European countries have devoted much of their spending on operating costs with an average of 60 percent. Only the United Kingdom spends relatively the same amount on R&D and procurement in comparison to United States. Another challenge is the essential transformation of European military forces. The “revolution in military affairs” has gradually changed in regards the new challenges of the 21st century. In addition, concepts

²⁴⁶ Gustav Lindstrom, *The Headline Goal*, (Paris: EU Institute for Security Studies, 2005), p. 3, <http://www.iss-eu.org/esdp/05-gl.pdf> (accessed February 25, 2005).

²⁴⁷ Institute for Security Studies, *EU Security and Defense, Core Documents 2004* (Paris: EU Institute for Security Studies, February, 2005), pp. 303-304, <http://www.iss-eu.org/chaillet/chai75e.pdf> (accessed February 2, 2005).

such as Network Centric Warfare and Effects Based Operations as revealed in the operations in Afghanistan and Iraq have influenced force transformation and industry restructuring. The transformation from territorial defense to intervention and expeditionary warfare compels European forces to deeply change what they have to match on such a scale.²⁴⁸ The other obstacle is due to the fact that European armed forces still struggle to overcome the legacy of the Cold War, and the restructuring of European is a slow and cumbersome process due to the limited financial investments. Military equipment acquisition takes years or decades to fulfill deficiencies and enter into service. Therefore, a number of shortfalls still persist. Last but not least, member states are often reluctant to give up their national prerogatives, which also slow down the speed of change.²⁴⁹ In spite of the deficiencies, European countries achieved considerable achievements and declared initiatives are still in progress, which indicates the direction of future capability improvements.

3. Rapid Response – EU Battlegroups

Following the initiatives of the Headline Goal 2010, France, Germany and the United Kingdom proposed the creation of rapidly deployable troops in February 2004. These Battlegroups would be at high readiness which could carry out conflict prevention, peacekeeping and peace enforcement operations. The EU defense minister approved the establishment of Battlegroups in the process of strengthening military capabilities for crisis management. According to the Battlegroup concept, each force package would consist of nearly 1,500 troops, including all combat and service support elements, and these packages would have the capability of being deployable within 15 days and sustainable for 30 days, and if needed, expandable to 120 days. Battlegroups do need to be militarily effective and also capable of high intensity operations. At the same time, member states offering Battlegroups would ensure that they have sufficient strategic airlift capability to meet the 15 days target. Battlegroups could be created by one nation alone and could be supported by other nations that contribute niche capabilities. If a country is unable to form a full Battlegroup, enabling capabilities could be met by

²⁴⁸ Jean-Yves Haine, *European Defense: A Proposal for a White Paper* (Paris: EU Institute for Security Studies, May 2004), pp. 54-55.

²⁴⁹ Burkard Schmitt, "European Capabilities," in *EU Security and Defense Policy: The First Five Years (1999-2004)*, ed. Nicole Gnesotto (Paris: EU Institute for Security Studies, 2004), p. 97.

multinational solutions, but the ultimate criteria will be military effectiveness, readiness and deployability.²⁵⁰

In May 2004, the EU concluded that at least one Battlegroup would achieve initial operational capability by 2005. Complete development would be achieved in 2007 within a full operational capability in which the EU plans to have two concurrent Battlegroups that can carry out such missions at the same time.²⁵¹ EU member states offered remarkable contributions to the EU Battlegroups and initial commitments ensured the formation of thirteen Battlegroups, while some of the member states committed niche capabilities in order to support Battlegroups. France and the United Kingdom have made commitments to form a Battlegroup in the first half of 2005 and Italy will provide a Battlegroup for the second half of 2005. Germany and France plan to commit a joint Battlegroup beginning in 2006.²⁵² If the EU member states can accomplish putting the fully operational Battlegroup concept in practice, they would overcome one of Europe's most important capability gaps.

4. NATO – EU Relations in Capability Developments

NATO and EU have made arrangements for cooperation since the end of the Cold War, based on the subsequent development of their strategic partnership. However, both of the organizations recognized the importance of development in military capabilities of their members. NATO experts began to make contributions to establishment of a catalogue of forces and capabilities for the EU Headline Goal in 2000. NATO and EU experts have worked together in military and technical areas for capability transformation. In order to develop effective military capability requirements, the NATO-EU Capability Group was established in May 2003. The aim is to ensure coherent and mutually reinforcing development of military capabilities underway in the ECAP and the

²⁵⁰ EU, EU Fact Sheets, *The EU Battlegroups and The EU Civilian and Military Cell*, February, 2005, http://europa.eu.int/comm/external_relations/us/bush/battlegroups.pdf (accessed March 1, 2005), See also Institute for Security Studies, *EU Security and Defense, Core Documents 2004* (Paris: EU Institute for Security Studies, February, 2005), pp. 10-13, <http://www.iss-eu.org/chailot/chai75e.pdf> (accessed February 2, 2005).

²⁵¹ Institute for Security Studies, *EU Security and Defense, Core Documents 2004* (Paris: EU Institute for Security Studies, February, 2005), p. 297, <http://www.iss-eu.org/chailot/chai75e.pdf> (accessed February 2, 2005).

²⁵² Gustav Lindstrom, *The Headline Goal* (Paris: EU Institute for Security Studies, 2005), pp. 4-5, <http://www.iss-eu.org/esdp/05-gl.pdf> (accessed February 25, 2005).

PCC.²⁵³ The Project Groups of ECAP and PCC have established close practical cooperation and they provide an ongoing exchange of information in the development of capabilities.²⁵⁴

The ECAP and PCC co-operate in six areas: defense against NBC weapons, medical, UAVs, strategic airlift and sealift, and air-to-air refueling.²⁵⁵ On the other hand, despite the fact that the EU Battlegroups' concept parallels the NRF, NATO and EU depend on a single set of forces drawn from the same and limited pool of countries. Therefore, most of the EU forces would be "double-hatted." As a result, "controversy about the organization responsible for running an operation could arise", because only a few European countries have the concurrent capability to take part in the NRF and Battlegroups. If one mission has priority over another, there would be a considerable issue whether NATO or the EU was in charge.²⁵⁶ The NATO-EU Capability Group should work to ensure that both force packages are mutually coherent and complementary. In addition, there are some fields where co-operation has not truly taken form, such as combating terrorism, WMD proliferation and civil emergency planning.²⁵⁷ NATO and the EU aim to develop military capabilities of the same resources, therefore they have to establish deeper integration and practical cooperation in order to maintain collective efforts. The recently created European Defense Agency (EDA) would establish more contacts between NATO and the EU as a catalyst to the military transformation process of Europe.

²⁵³ NATO, NATO Topics, *NATO-EU: A Strategic Partnership*, December 2, 2004, <http://www.nato.int/issues/nato-eu/eu-responsability.html> (accessed February 4, 2005).

²⁵⁴ Institute for Security Studies, *EU Security and Defense, Core Documents 2004* (Paris: EU Institute for Security Studies, February, 2005), p. 307, <http://www.iss-eu.org/chailot/cha75e.pdf> (accessed February 2, 2005).

²⁵⁵ Annalisa Monaca, *NATO-EU Relations State of Play as EU Takes Over in Bosnia*, Basic Publications, December 7, 2004, <http://www.basicint.org/update/NATO041207.htm> (accessed March 1, 2005).

²⁵⁶ Jean-Yves Haine, *European Defense: A Proposal for a White Paper*, (Paris: EU Institute for Security Studies, May 2004), p. 62.

²⁵⁷ Annalisa Monaca, *NATO-EU Relations State of Play as EU Takes Over in Bosnia*, Basic Publications, (Washington D.C.: The British American Security Information Council, December 7, 2004), <http://www.basicint.org/update/NATO041207.htm> (accessed March 1, 2005).

B. DEFENCE EXPENDITURES OF NATO MEMBERS

The major factor that determines the capability improvements of the Alliance is the amount of defense spending invested in this area. Insufficient spending on defense presents the greatest hurdle for most of the European Allies in implementing the capability commitments. Throughout the history of NATO, the United States has devoted a higher percentage of its Gross Domestic Product (GDP) defense than most other members, and it was also much more in absolute terms. In addition, the European Allies have spent proportionally more on personnel and less on procurement in comparison to the U.S. defense spending.²⁵⁸ It is the long-standing complaint among the Alliance that stressed the big difference in the level of military expenditure of the United States and European Allies. NATO officials emphasized that the European Allies must spend more money in order to close the existing gap between the United States and European Allies. To a large extent, the success of the NATO capability improvements will be connected to reducing the amount of defense budgets spent on large standing forces and infrastructure while increasing the amount of defense budgets spent on modern equipment. One of the criteria demanded from applicant states is to commit to spending 2 percent of GDP on defense expenditures. Before the end of the Cold War, there was a downward trend in defense spending, but it turned into stabilization through the mid-1990s. However, most of the Allies are still well below the target spending level and cannot fulfill the 2 percent defense spending level, except France, Greece, Turkey, the United Kingdom and the United States.²⁵⁹

²⁵⁸ David, S. Yost, "The U.S.-European Capabilities Gap and the Prospect for ESDP," in *Defending Europe: The EU, NATO and The Quest for European Autonomy*, ed. Jolyon Howorth and John T.S. Keeler (New York: Palgrave Macmillan division of St. Martin's Press, 2003), p. 84.

²⁵⁹ John Shimkus, *Alliance-Wide Progress on Meeting The Prague Capability Commitments*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 24, 2004, p. 7, <http://www.nato-pa.int/default.asp?TAB=489> (accessed January 12, 2005).

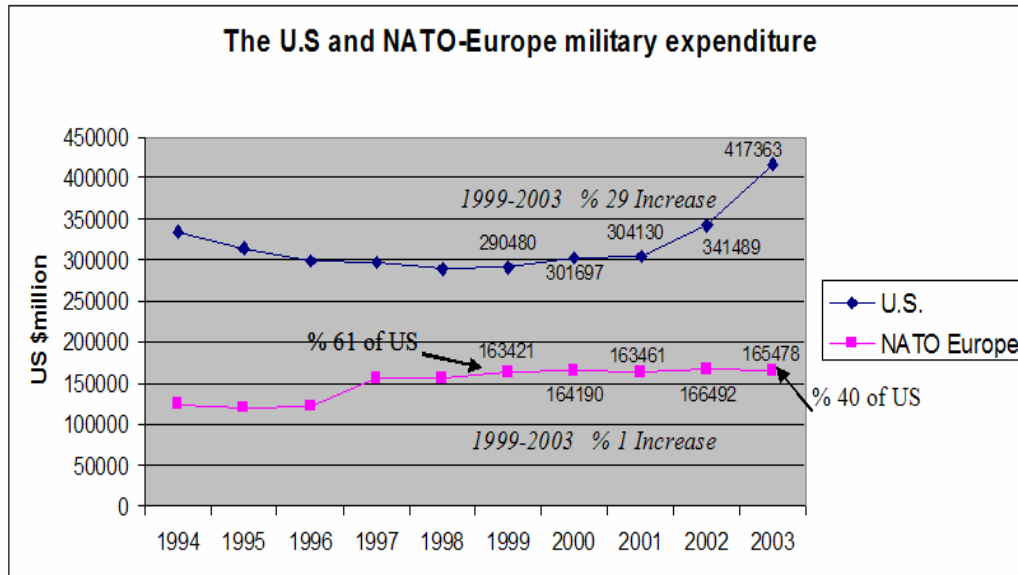


Figure 1. U.S. and NATO-Europe Military Expenditures²⁶⁰

Initially, the military expenditure of NATO was stabilized by the mid-1990s and it gradually began to increase again after 1999. NATO members collectively spent approximately \$454 billion on defense in 1999. However, the ratio of defense budgets between the United States and the European Allies was imbalanced because the United States spent, about 6.1 percent of the total for the Alliance in 1999, and the U.S. defense spending is 3 percent of its GDP compared to 2.1 percent of the European Allies as a whole. In 2003, the NATO military expenditure reached nearly \$583 billion, a 28 percent increase over 1999. However, the European Allies have devoted less of their resources to defense in this period. The United States alone spent \$417 billion on defense while the European Allies spent nearly \$166 billion, and as a result, the ratio between the defense budgets of the United States and the European Allies has dropped to about 40 percent of the total in 2003. The reason was that the United States increased its military expenditure 29 percent since 1999 but the European Allies kept theirs at almost the same level, with only a 1 percent increase since 1999.²⁶¹

²⁶⁰ Author's analysis based SIPRI data, http://first.sipri.org/non_first/result_milex.php?send (accessed February 11, 2005).

²⁶¹ Stockholm International Peace Research Institute, The SIPRI Military Expenditure Database, http://first.sipri.org/non_first/result_milex.php?send (accessed February 17, 2005)

It is obvious that the terrorist attacks of September 11, 2001 caused a huge increase of the U.S. military expenditure, particularly to combat terrorism, but this trend has not been mirrored in Europe. In addition, most of the European Allies were more concerned with domestic issues such as the demographic effect of aging populations and fiscal problems, which meant that defense expenditure could not get the budgetary priority essential to remedy the existing capability gap envisaged in the DCI and PCC process.²⁶² Therefore, the weakness and structural problems of European economies, along with the absence of an increase in public threat perceptions, indicate that constraints on the budgetary expenditure of European Allies to devote adequate resources to defense will persist for the foreseeable future.²⁶³ European Allies need to use their existing military expenditure more efficiently in order to close the capability gap. They could balance the ratio of the expenditures for personnel, equipment and R&D.

1. Military Expenditure on Personnel

The European Allies might shift some resources from personnel expenditures while restructuring the armed forces, in particular members with large standing or conscript armies. Thus, it can be directed through R&D and the procurement process of defense budgets.²⁶⁴ The European Allies spent a disproportionate amount of their defense budgets for personnel expenditures. The average percentage of the European Allies' defense budgets on personnel is 44 percent since the mid-1990s. In 2003, the U.S. defense spending on personnel was only 35 percent. However almost all of the European Allies spent more than 50 percent percent of their defense budget on personnel excluding the United Kingdom, Norway and Turkey. Additionally, the Allies such as Greece, Luxembourg, Belgium Italy and Portugal spent nearly 75 percent of defense spending on personnel.²⁶⁵ It may not be possible for the near future to fund modernization by shifting

²⁶² The International Institute for Strategic Studies, "Defense Economics: NATO and Non-NATO Europe," in *Military Balance 2002-2003* (London: Oxford University Press, October 2002), p. 248.

²⁶³ The International Institute for Strategic Studies, "Defense Economics: NATO and Non-NATO Europe," in *Military Balance 2004-2005* (London: Oxford University Press, October 2004), p. 271.

²⁶⁴ Jocelyn Mawdsley and Gerrard Quille, *Equipping the Rapid Reaction Force* (Bonn International Center for Conversion, 2003), p. 28, <http://www.bicc.de/publications/papers/paper33/paper33.pdf> (accessed January 22, 2005).

²⁶⁵ Petter Stalenheim, *SIPRI Yearbook 2004 – Armaments, Disarmament and International Security, Table of NATO Military Expenditure by Category*, Stockholm International Peace Research Institute, 2004, http://www.sipri.org/contents/milap/milex/mex_nato_94-03.pdf (accessed February 3, 2005).

resources from personnel expenditures because many European Allies are still ending conscription and trying to build all-volunteer and professional forces. Some of the European Allies such as France, Italy, Portugal and Spain have eliminated mandatory military service. Germany and Denmark gradually decrease the number of conscripts they induct every year and new members of NATO plan to switch to volunteer forces in the next few years.²⁶⁶ Transition to the professional troops will reduce the percentage of Allied defense expenditure on personnel. At the moment however, the process of ending conscription continues and it will require years of reducing the size of the personnel to the sufficient level. Therefore, it is likely that the European Allies will not be able to shift sufficient resources from personnel to R&D and procurement for the foreseeable future.

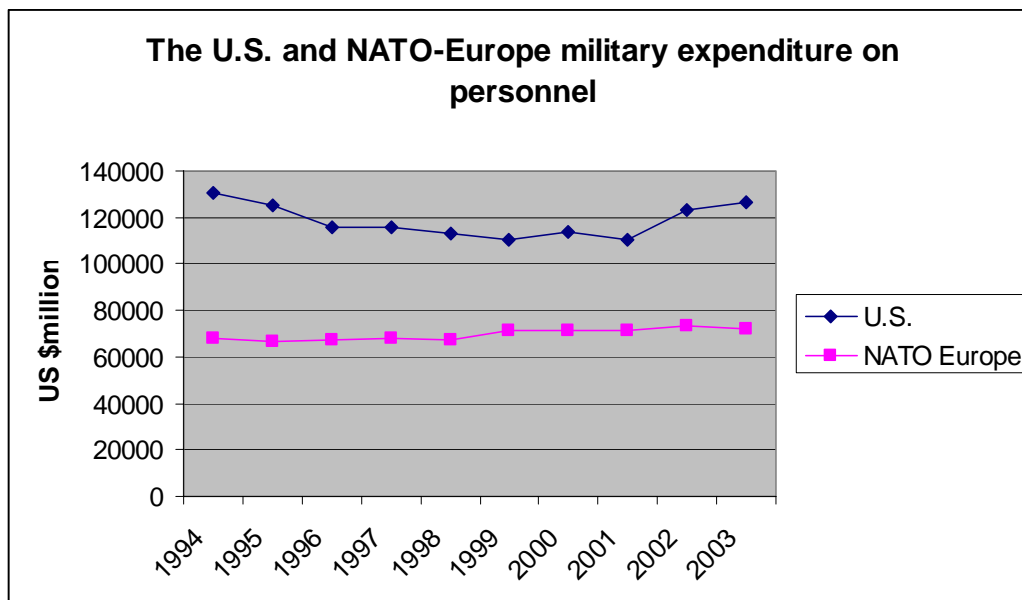


Figure 2. U.S. and NATO-Europe Military Expenditures on Personnel²⁶⁷

2. Military Expenditure on Research and Development

R&D spending is a good predictor for the future military capabilities of the Allies. The difference in spending levels between the United States and European Allies on military investment is also important and has potential to widen the gap in military capabilities. The United States spends nearly \$50 billion each year for defense R&D

²⁶⁶ Julio Miranda Calha, *Reform of NATO Command Structure and the NATO Response Force*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 2003, <http://www.nato-pa.int/default.asp?TAB=365> (accessed January 12, 2005).

²⁶⁷ Author's analysis based SIPRI data, http://first.sipri.org/non_first/result_milex.php?send (accessed February 11, 2005).

investment. In contrast, the European Allies spend less than \$12 billion.²⁶⁸ In addition, the United States has a more consolidated defense market that can afford more capable defense outputs than European counterparts as a result of R&D spending. Moreover, besides spending less on R&D, there is no defense R&D coordination in the highly fragmented defense market of the European Allies, which makes it duplicative and intensifies the capability gap between the United States and European Allies. The European Allies have no coherent policy for R&D investment and can be seen as an obstacle to industrial growth. Inadequate R&D funding might generate dramatic consequences for European Allies. As a RAND report indicates:

- There is a real danger that future capabilities of European forces will be significantly compromised;
- European firms could be at a competitive disadvantage compared with the U.S. firms. This disadvantage would be primarily financial because European firms would have to devote a larger proportion of their own funds to R&D;
- Low government R&D funding decreases incentives for European companies to invest in the military side of their businesses and could increase the risk that companies will choose to move out of defense—particularly those companies that can take advantage of dual technologies and other non-state funding sources—and move to more profitable civil activities.²⁶⁹

The United States has increased its total R&D spending approximately 50 percent since the end of the Cold War, but European Allies increased their R&D only 15 percent.²⁷⁰ Spending on defense R&D will be critical for the future capabilities of the Alliance because it could enable the Alliance to deal with the asymmetric challenges of the 21st century. Therefore, European Allies have to improve the ratio on defense R&D investment and they should make arrangements for more coordinated spending on defense R&D. Sufficient investment on defense R&D not only would help to close the

²⁶⁸ John Shimkus, *Alliance-Wide Progress on Meeting The Prague Capability Commitments*, NATO Parliamentary Assembly, Sub-committee on Transatlantic Defense and Security Co-operation, November, 24, 2004, p. 11, <http://www.nato-pa.int/default.asp?TAB=489> (accessed January 12, 2005).

²⁶⁹ Katia Vlachos-Dengler, *From National Champions to European Heavyweights: The Development of European Defense Industrial Capabilities Across Market Segments*, RAND Corporation, National Security Research Division, 2002, p. 152, <http://www.rand.org/publications/DB/DB358/> (accessed March 1, 2005).

²⁷⁰ Bent Erik Bakken, *(When) Can Europe Match US' Military Power*, Norwegian Defense research Establishment Division for Analysis, 2004, <http://cgi.albany.edu/~sdsweb/sdsweb.cgi?P319> (accessed March 1, 2005).

capability gap, particularly in reducing the technology gap but also would improve the interoperability among the Allies.

3. Military Expenditure on Equipment

Procurement spending is considered one of the major drivers of the Allies current military capabilities. The average percentage of the defense budgets of the European Allies on equipment was 14 percent since 1999. However, the United States spent 25 percent of its defense budget in the same period. In addition, despite the European Allies promise for a greater military capability along with the DCI and PCC, they increased their military expenditure on equipment only 0.1 percent between 1999 and 2003, while the United States increased its equipment expenditure 37 percent in real terms for the same interval.²⁷¹ The European Allies dramatically continued to spend a larger proportion of their defense budgets on personnel rather than on the development and procurement of new equipment. These spending levels are potential concerns that tend to widen the capabilities gap between the United States and the European Allies. There still remains a number of competing new programs that would provide technologically advanced and expeditionary capabilities to the European Allies. However, allocating limited funds for capability initiatives such as A400M transport aircraft, C4 infrastructure or ISR systems pose a source of concern for the European defense budgets, and insufficient resources might cause the cancellation or delaying of necessary programs.²⁷² Consequently, there are no significant changes in the defense budgets of the European Allies in the recent years and it is unlikely that the European Allies will increase their defense spending, given the various priorities of governments and financial restrictions in the next few years. Therefore, the European Allies should reexamine and balance the ratio of their defense budgets in order to present more efficient use of scarce sources. European Allies have to shift their defense budgets in favor of military equipment as well as R&D. In addition, regarding the capability commitments to narrow the capability gap,

²⁷¹ Petter Stalenheim, SIPRI Yearbook 2004 – *Armaments, Disarmament and International Security, Table of NATO Military Expenditure by Category*, Stockholm International Peace Research Institute, 2004, http://www.sipri.org/contents/milap/milex/mex_nato_94-03.pdf (accessed February 1, 2005).

²⁷² Katia Vlachos-Dengler, *From National Champions to European Heavyweights: The Development of European Defense Industrial Capabilities Across Market Segments*, RAND Corporation, National Security Research Division, 2002, pp. 148-149, <http://www.rand.org/publications/DB/DB358/> (accessed March 1, 2005).

the European Allies not only need to spend effectively, they also need to spend more to deliver essential capabilities.

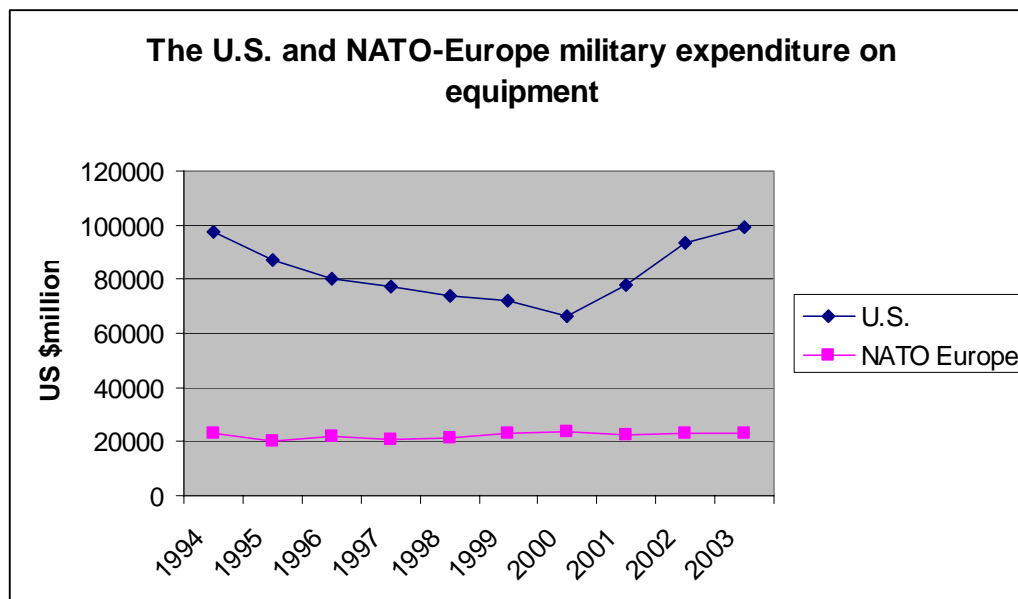


Figure 3. U.S. and NATO-Europe Military Expenditures on Equipment²⁷³

C. ENHANCING THE ALLIANCE'S MILITARY CAPABILITY

The European Allies could achieve essential capabilities from their considerable defense spending if they can make better use of their defense expenditures. However, this would also require more systematic thinking on how they can reduce duplication, or increase deeper integration on defense industries and defense technologies along with shared and pooled capabilities.²⁷⁴ If the European Allies can collectively share tasks and develop more multinational capacities, they can position effective and efficient capabilities for the Alliance military transformation.

1. Pooling of Current Capabilities

Pooling of capabilities is one of the necessary strategies to make up the capability shortfalls of the European Allies. The European Allies have two categories of assets to pool: first, common equipment capabilities that already exist but operate on a national basis, and second, new capabilities which should be operated on a cooperative basis. In

²⁷³ Author's analysis based SIPRI data, http://first.sipri.org/non_first/result_milex.php?send (accessed February 11, 2005).

²⁷⁴ Jocelyn Mawdsley and Gerrard Quille, *Equipping the Rapid Reaction Force* (Bonn: Bonn International Center for Conversion, 2003), p. 13, <http://www.bicc.de/publications/papers/paper33/paper33.pdf> (accessed January 22, 2005).

this context, there are three complementary advantages of pooling of force elements. Initially, pooling of capabilities is the most cost efficient way, which lowers fixed costs, and the costs released by pooling assets might be used to fund new enabling capabilities. Second, when the Allies pool essential assets it would be more affordable because the costs of the pooled assets would be shared. Finally, pooling of assets would compel the Allies to have greater interoperability and common equipment.²⁷⁵ Some nations have already achieved multilateral agreements on pooling of forces that will reduce support and operating costs. As an instance, some of the European Allies decided to create a European expeditionary wing with F-16 aircraft. It could be operated at much lower costs in the areas of common training, maintenance and logistics. However, the concerns might deepen when the pooled assets becomes more combat related and higher technology. Additionally, national prerogatives and policy divergences might become an obstacle for the pooling of existing capabilities.²⁷⁶

If the European forces are analyzed as a whole, a considerable degree of duplication in the military assets can be seen. By pooling military assets, the European Allies could yield operating cost savings at the national level. The pooled forces should be organized differently from on-call multinational arrangements in order to gain significant lower costs. The force should not be tied the procedure of any particular nation. There would be a single organization for the planning, logistic and servicing procedures to support the pooled force. Consequently, the Allies could achieve remarkable savings through the manpower, headquarters and infrastructure within the military structures of the contributing nations. It is likely that the Allies would realize the advantageous and benefits of contributing to such a force element. This would also reduce the duplication of efforts and resources would be invested in enhancing other capabilities.²⁷⁷ The European Allies began to make some multinational agreements for

²⁷⁵ Jocelyn Mawdsley and Gerrard Quille, *Equipping the Rapid Reaction Force* (Bonn: Bonn International Center for Conversion, 2003), pp. 70-71, <http://www.bicc.de/publications/papers/paper33/paper33.pdf> (accessed January 22, 2005).

²⁷⁶ Tim Garden, *European Defense: Creating Consensus and Capability*, October 11, 2004, <http://www.tgarden.demon.co.uk/writings/articles/2004/041011nl.html> (accessed January 25, 2005).

²⁷⁷ Jocelyn Mawdsley and Gerrard Quille, *Equipping the Rapid Reaction Force* (Bonn: Bonn International Center for Conversion, 2003), pp. 71-73, <http://www.bicc.de/publications/papers/paper33/paper33.pdf> (accessed January 22, 2005).

such kind of forces by the PCC. They also achieved some progress particularly in the high cost of military assets. However, the number of pooled forces has to be enhanced in order to gain more financial savings.

2. Specialization and Niche Capabilities

Each member of NATO has a different historical heritage and geographical position, which may influence each member strategic choices and defense posture. In spite of the collective defense principle, one member might be more influenced by territorial defense thinking than another member. In regards to political ambitions and budgetary constraints of members, each state could unilaterally specialize and concentrate in a specific type of force. The options could be proposed to the member states on particular aspects of whole requirements. The potential concern specialization is that unilateral measures might be damaging in terms of duplication of capabilities if not coordinated with other members. However, in the light of political and budgetary reasons, the Alliance can narrow interpretation of role specialization and authorize which members specialize on the particular forces of military capabilities. Specialization does not mean abandoning more demanding assets or forces: rather, unilateral specialization might be the focus on niche capabilities. The Czech Republic has built greatly appreciated chemical and biological warfare units for NATO operations. This acquisition demonstrates that Allies could contribute small but significant parts of the expeditionary force. Therefore, the following list, identified as niche capabilities, might fulfill the significant gaps of the Alliance:

- specialized forces;
- special operation forces;
- high readiness, high mobile, lethal forces;
- human intelligence for military purposes;
- theater surveillance and reconnaissance;
- medical support;
- SEAD and NBC protection;
- combat search and rescue.²⁷⁸

²⁷⁸ Jean-Yves Haine, *European Defense: A Proposal for a White Paper* (Paris: EU Institute for Security Studies, May 2004), pp. 118-120.

There are some good examples of this happening gradually at present, as in Afghanistan, where Danes and Norwegians provided Special Forces. In addition, Danes also supplied mine-clearance specialists. Yet NATO should expand the range of specialization in military capabilities or assets, which would also help to reduce defense spending on overlapping capabilities. Meeting niche capabilities with specialization would be a positive step forward if the ability of forces or assets is compatible and usable, and if they are presented without restrictions in their use. There are some concerns that might emerge in this process. Initially, some smaller members might use niche capabilities as an excuse for not spending an appropriate amount on defense. Second, it might be problematic in practice for larger nations. Members with significant Armed Forces might hesitate to give up certain capabilities in order to concentrate on others. The fact is that specialization of certain members requires a willingness to accept reduced capacity when the national foreign policy compels autonomous action. In addition, it requires a high degree of trust among Allies, as any member can decide to undertake a mission itself, because renounced assets might be necessary for any mission while pursuing national policies or missions.²⁷⁹ Despite some potential concerns that might emerge in specialization, member states could make significant contributions to the NATO military transformation process by developing niche capabilities. In addition, it would ensure the efficiency in overall defense spending of European Allies by reducing the costs of duplicative national efforts. NATO should coordinate and authorize the specialization process in a systematic way in order to avoid duplication and to fulfill the widest range of the capabilities gap.

3. Transatlantic Defense Cooperation

There are many reasons for the Allies to improve the transatlantic defense industry relations, which would provide enhanced interoperability and consolidation of scarce resources. The implementation of the capability transformation process reinforces cooperation on each side of the Atlantic. The consolidation of the industries could bring more efficiency to defense procurement, increased competition for acquisition programs, and the opportunities to take advantage of critical emerging technologies. It is obvious

²⁷⁹ House of Commons, Defense Committee, *The Future of NATO*, Seventh Report of Session 2001-02, July 30, 2002, par. 133-134, <http://www.parliament.the-stationery-office.co.uk/pa/cm200102/cmselect/cmdfence/cmdfence.htm> (accessed January 6, 2005).

that closer defense ties and a more open regime in transatlantic defense industry cooperation will present economic, technological and operational advantages for European Allies and the United States. However, the growth of transatlantic industrial ties has been slower than the consolidation within the United States and Europe. The reason was that government programs drove transatlantic collaboration and these involved the licensing and co-production of the U.S. hardware in Europe. However, European governments were concerned about the “one-way street” in which the United States was reluctant to buy European systems. Despite the European defense groups’ interest in the U.S. defense market, they could not achieve agreements that could lead to new arrangements on the basis of a consolidated defense industry. There were no major acquisitions toward the consolidated industry and only a few U.S. firms preferred joint ventures or strategic partnerships in the defense industry by 2000, because the U.S. defense industry was very cautious as it pertained to the European market and this prevented a major acquisition of European defense assets by the United States. Consequently, the reluctance of the U.S. defense market to be open to European industry has long been a major obstacle to the future of transatlantic defense industry integration.²⁸⁰

The United States had some obstacles and concerns that prevented the consolidation of industries. Initially, if the European firms plan to establish geographic presence in the United States thorough integration or acquisition of the U.S. defense industries, the rules and procedures to govern direct foreign investment would create political and administrative hurdles to European defense firms. The reasons for these obstacles were to protect U.S. business from foreign competition and to limit the spread of technological secrets for national security. Another obstacle was the regulations for export controls and technology transfers that became the central target of European criticism and prevented a flexible transatlantic regime for defense trade.²⁸¹ While the military transformation and high technological weapons gained more importance,

²⁸⁰ Gordon Adams, “Fortress America in a Changing Transatlantic Defense Market,” in *Between Cooperation and Competition: The Transatlantic Defense Market*, ed. Burkard Schmitt (Paris: Institute for Security Studies of WEU, January, 2001), pp. 4-20, <http://www.iss-eu.org/chaillot/chaill44e.pdf> (accessed December 30, 2004).

²⁸¹ Ibid.

European Allies and the defense industry increasingly continued to push for changes. Thus, the president of Germany's DaimlerChrysler Aerospace Division wrote a letter to the U.S. former Secretary of State Madeleine Albright at the end of 1999 that indicated the European defence industry's concerns:

I respectfully urge you to review current export control policies and procedures with a view towards promoting cooperation among NATO allies and laying the groundwork for possible future transatlantic industrial mergers... The root problem is that the practices and procedures of implementation constitute a major obstacle to greater transatlantic armaments and technology cooperation. Such cooperation is the foundation for greater interoperability among NATO forces and countries... However, the current system of export and technology control as practiced by the United States and especially by the Department of State serves to discourage, rather than encourage, such cooperation.²⁸²

There happened to be considerable resistance to the reform package in the departments of the United States government due to the risks and concerns about the leakage of U.S. technological secrets. However, the United States completed the reform package and Albright announced the Defense Trade Security Initiative (DTSI) at the Ministerial Meeting of the North Atlantic Council on May 24 2000.²⁸³ The new steps the United States would take improved efficiency and reduced the burdens on the defense industry. The DTSI was a package of significant reforms to U.S. defense export control procedures intended to remove unnecessary impediments to the U.S. defense trade. By promoting greater technology sharing with the U.S. coalition partners, it would contribute to enhanced interoperability between the United States and NATO Allied forces, encourage cooperation and competition in defense markets in an era of industrial consolidation, and enhance mutual security.²⁸⁴ The DTSI was also designed to support the DCI process of the Allies, but the reforms remain to be implemented. In spite of its

²⁸² Letter from Dasa Chief Executive Officer Manfred Bischoff to Secretary Albright, December 9, 1999, as quoted in Vago Muradian, "Allies Call On Albright to Reform Export Controls," *Defence Daily*, Volume 205, Issue 3, (January 6, 2000), p. 1, <http://proquest.umi.com/pqdweb?index=0&did=47703551&SrchMode=1&sid=1&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1116301343&clientId=11969> (accessed January 1, 2005).

²⁸³ U.S., Department of the State, Press Statement by Philip T. Reeker, *Defense Trade Security Initiatives*, May 24, 2000, <http://www.fas.org/asmp/campaigns/control/ps000524d.html> (accessed February 12, 2005).

²⁸⁴ U.S., Department of Defense, Defense Security Cooperation Agency, *Defense Trade Security Initiatives*, <http://www.dsca.osd.mil/dtsi/links.htm> (accessed March 1, 2005).

rhetorical framework, the expected efficiencies from DTSI have not materialized because DTSI made “only procedural modifications to an already complex export system, as opposed to what is really needed to break with the old Cold War thinking—a complete paradigm revision”²⁸⁵ and it could not achieve to remove significant obstacles. DTSI needed to be modified to reinforce the transatlantic defense industry cooperation.

At the Prague Summit, the Bush-Administration initially adopted DTSI and the United States declared that it planned for a comprehensive assessment of the effectiveness of the U.S. defense trade, defense trade security and related acquisitions policies. The aim was both to identify necessary changes and to ensure that those policies continued to support U.S. national security and foreign policy goals. Additionally, it was to recognize all aspects of barriers that impede transatlantic defense industrial cooperation.²⁸⁶ Unlike the DTSI, the new assessment known as National Security Policy Directive 19 was a complete review of export procedures and the review process was to be completed in six months. A comprehensive assessment was expected to suggest methods to facilitate the Allies’ efforts to increase military capability and interoperability for more effective coalitions. As of today, no official results have been published.

It is obvious that transatlantic defense industry cooperation has a priority in which the governments should provide policy and regulatory frameworks in order to maximize opportunities for defense companies. Defense industries can play vital roles in capability transformation if the governments facilitate this process. Therefore, the governments should promote an environment that allows closer industrial cooperation on the development of advanced military systems across the Atlantic.²⁸⁷ The U.S. policies towards defense industries is a key factor in the equation of NATO’s future effectiveness and transatlantic defense industry cooperation, because if the aim is to assure that Allied military capabilities would be able to field “comparable, interoperable and advanced

²⁸⁵ Dennis Kennelly and Ben Stone, *Bush Team Reviewing Defense Trade Policy*, National Defense Industrial Association, April 2003, http://www.nationaldefensemagazine.org/issues/2003/apr/Bush_Team.htm (accessed March 1, 2005).

²⁸⁶ U.S., The White House, Bush Administration, *Fact Sheet: Bush Administration Review of Defense Trade Export Policy and National Security*, Office of the Press Secretary, November 21, 2002, <http://www.whitehouse.gov/news/releases/2002/11/20021121-5.html> (accessed March 2, 2005).

²⁸⁷ NATO Speeches, Conference on *Transatlantic Defense Industrial Cooperation Challenges and Prospects*, Keynote address by NATO Secretary General, Lord Robertson at Residence Palace, Brussels, July 18, 2003, <http://www.nato.int/docu/speech/2003/s030718b.htm> (accessed February 23, 2005).

defense technologies,” then many of these capabilities are residing in the U.S. defense industrial base.²⁸⁸ Current defense trade laws and policies of the United States should be revised in a short time to balance the transatlantic competitiveness of the defense industries and reach more efficiency in the capability transformation of NATO forces.²⁸⁹

4. National Regulations and the Defense Industry

There is a high level of disparity of national regulations in the field of defense among NATO members, which present an obstacle to the defense industry. In the case of export regulations, European Allies have their own cumbersome legislation. That prevents the free circulation of defense products. In case of competition, European Allies claim a policy of openness in the armaments markets but in practice they maintain their respective national preferences.²⁹⁰ The production and trade of military assets have been excluded from the defense integration, as European Allies have preferred to keep these activities under national control. Companies in defense were not competitive because each country in Europe was concerned about the opening up of its own defense market, with the fear of losing national protection.²⁹¹ The consequences revealed fragmentation of the defense industries and loss of competitiveness among European Allies.

As of July 1998, six European countries (France, Germany, Italy, Spain, Sweden and the United Kingdom), had initiated the Letter of Intent (LoI) process in order to remove the fundamental barriers that had prevented effective industrial and inter-governmental co-operation in the defense industries. The Framework Agreement covered following areas: Security of Supply, Transfer and Export Procedures, Security of Classified Information, Research and Technology, and Treatment of Technical Information, and Harmonization of Military Requirements. It was signed by the major

²⁸⁸ Lincoln P. Bloomfield, *Status of U.S. Interagency Review of U.S. Export Licensing and Technology Transfer Policy*, Conference on Transatlantic Defense Industrial Cooperation: Challenges and Prospects, Brussels, July 18, 2003, <http://www.state.gov/t/pm/rls/rm/22537.htm> (accessed March 2, 2005).

²⁸⁹ Dennis Kennelly and Ben Stone, Bush Team Reviewing Defense Trade Policy, National Defense Industrial Association, April, 2003, http://www.nationaldefensemagazine.org/issues/2003/apr/Bush_Team.htm (accessed March 1, 2005).

²⁹⁰ Christophe Cornu, “Fortress Europe-Real or Virtual?” in *Between Cooperation and Competition: The Transatlantic Defense Market*, ed. Burkard Schmitt (Paris: Institute for Security Studies of WEU, January, 2001), pp. 62-64, <http://www.iss-eu.org/chaillot/chai44e.pdf> (accessed December 30, 2004).

²⁹¹ Burkard Schmitt, *The European Union and Armaments*, (Paris: EU Institute for Security Studies, August, 2003), pp.9-10, <http://www.iss-eu.org/chaillot/chai63e.pdf> (accessed February 23, 2005).

European arms-producing countries and entered into force in 2001.²⁹² The LoI process represented the first attempt to rationalize the internal regulations for restructuring the transnational defense industry in Europe. These six countries account for nearly 90 percent of all European industrial capacity and 80 percent of procurement budgets in Europe.²⁹³ Burkard Schmitt, Assistant Director at the EU Institute for Security Studies, analyzed the LoI approach and its limitations, which have delayed improvements;

Since its beginning, the LoI process has been caught between pressure to produce concrete results rapidly and a reluctance to engage in more thorough reform. Consequently, its approach has been rather limited, trying to make national rules and procedures compatible with each other rather than setting up a new regulatory framework. Rules and procedures have not been standardized, nor policies harmonized. This self-imposed limitation has led to solutions that are often too complex, vague or not sufficiently binding. ... The fact that it will have taken more than three years to accomplish the ratification process and make the Framework Agreement operational is a case in point.²⁹⁴

In spite of the uneven implementing process of LoI, the progress achieved by European Allies has helped revive the process of consolidating the European arms industry and the European Allies have accelerated their efforts to simplify business for transnational defense companies.²⁹⁵ The new threats and challenges require high-tech military assets in which each country can not afford its own defense industry. If the European Allies can consolidate their defense industries, it would be highly beneficial to the transformation of military capabilities of European Allies, and it would reduce costs in terms of R&D and procurement as well as provide harmonization of the requirements of their armed forces.

²⁹² Kathlee n Millerand Caroline Brooks, *Export Controls in the Framework Agreement Countries*, Basic Publications, (Washington D.C.: The British American Security Information Council, July, 2001), http://www.basicint.org/pubs/Research/2001ExportControls1.htm#EXECUTIVE_SUMMARY (accessed March 1, 2005).

²⁹³ Christophe Cornu, "Fortress Europe-Real or Virtual?" in *Between Cooperation and Competition: The Transatlantic Defense Market* ed. Burkard Schmitt (Paris: Institute for Security Studies of WEU, January, 2001), p. 81, <http://www.iss-eu.org/chaillet/chai44e.pdf> (accessed December 30, 2004).

²⁹⁴ Burkard Schmitt, *The European Union and Armaments – Getting a Bigger Bang for the Euro*, (Paris: Institute for Security Studies of WEU, August, 2003), p. 28, <http://www.ciaonet.org/wps/scb03/scb03.pdf> (accessed March 2, 2005).

²⁹⁵ Roxana Tiron, *European Defense Agency Raising Hackles in the United States*, National Defense Industrial Association, August, 2004, http://www.nationaldefensemagazine.org/issues/2004/Aug/European_Defense.htm (accessed March 1, 2005).

5. Jointly Owned – Jointly Operated Assets and the Principles of Common Funding

Aside from a limited number of permanent headquarters and small standing forces, NATO members retain the vast majority of military assets and forces under their own national command and control. Common funding and cost sharing are used to manage the Alliance's financial resources. The total expenditure of members for the common funding represents "half of one percent of the total expenditures of NATO." Multinational cooperative activities in terms of research, development and production are not involved in common funding. In this context, the principles of common funding could not truly support the capability transformation process of Alliance, the reason being:

NATO funding does not therefore cover the procurement of military forces or of physical military assets such as ships, submarines, aircraft, tanks, and artillery or weapon systems. Military manpower and materiel are assigned to the Alliance by member countries, which remain financially responsible for their provision. An important exception is the NATO Airborne Early Warning and Control Force, a fleet of radar-bearing aircraft jointly procured, owned, maintained and operated by member countries and placed under the operational command and control of a NATO Force Commander responsible to the NATO Strategic Commanders.²⁹⁶

In order to get efficient output for military capabilities, which Allies currently do not have, a different form of pooling is required. The costs should be shared to represent joint capabilities, as during the acquisition of AWACS. Considerable money could be saved by common funding through jointly owned and jointly operated high-cost military assets, and the money saved would be used to fulfill other shortcomings.²⁹⁷ In 2004, NATO Secretary General, Jaap de Hoop Scheffer mentioned the importance of common funding at the NATO Annual Conference:

If we want to make it easier for nations to contribute to our missions and operations we also need to make better use of common funding. Some critical capabilities, such as hospitals, airfields and ports, aren't just used by individual nations. They are theatre-level functions, and they should be eligible for common funding. That is why we are developing funding

²⁹⁶ NATO Publications, *The Principles of Common Funding*, October 19, 2002, <http://www.nato.int/docu/handbook/2001/hb0901.htm> (accessed February 23, 2005).

²⁹⁷ Tim Garden, *European Defense: Creating Consensus and Capability*, October 11, 2004, <http://www.tgarden.demon.co.uk/writings/articles/2004/041011nl.html> (accessed January 25, 2005).

mechanisms that will ease the financial burden for nations providing these critical capabilities for their Allies and partners in the field.²⁹⁸

NATO funds devoted to the jointly owned and jointly operated assets would reflect the interests of all Allies. The Alliance has recently made a big step towards such a program. NATO signed a contract with the TIPS consortium in April 2005, which would complete the current definition phase of the AGS program. AGS will be the largest acquisition program undertaken by the Alliance and it will be a NATO-owned and operated AGS capability, which is one of the most expensive acquisition programs in NATO's history.²⁹⁹ The fact is that high cost assets such as strategic airlift, air-to-air refueling or ISTAR capabilities cannot be designated for any single nation to provide, and despite the progress and ongoing efforts under the PCC process, Allies should pursue projects for joint owned and joint operated military assets under commonly funded programs.³⁰⁰

6. The European Defense Agency

Since the early 1990s, European governments planned to create a European Defense agency under the EU in order to promote cooperation in defense affairs. The Council of Ministers established the EDA on July 12 2004, as a consequence of the close relation between the capability development and armaments. The creation of the EDA indicated a growing awareness of the widening gap between the defense budget constraints of European countries and runaway development costs for complex weapon systems, with the purpose of equipping their armed forces adequately. EU members would efficiently address the following areas where positive development is most needed:

- Procurement - To be economically worthwhile, the growing need for interoperability should be translated into common equipment programs with common technical characteristics and procurement schedules. To

²⁹⁸ NATO Speeches, *NATO's Political and Military Transformation: Two Sides of the Same Coin*, Speech by NATO Secretary General, Jaap de Hoop Scheffer at NATO Annual Conference, Brussels, April 14, 2005, <http://www.otan.nato.int/docu/speech/2005/s050414a.htm> (accessed March 3, 2005).

²⁹⁹ NATO Press Release, *NATO's Alliance Ground Surveillance Program Gains Momentum*, 2005(55), April 28, 2005, <http://www.nato.int/docu/pr/2005/p05-055e.htm> (accessed April 12, 2005).

³⁰⁰ NATO Publications, *The Principles of Common Funding*, October 19, 2002, <http://www.nato.int/docu/handbook/2001/hb0901.htm> (accessed February 23, 2005).

³⁰⁰ Tim Garden, *European Defense: Creating Consensus and Capability*, October 11, 2004, <http://www.tgarden.demon.co.uk/writings/articles/2004/041011nl.html> (accessed January 25, 2005).

achieve this, Europe needs a common procurement system that allows the harmonization of military needs and better program management.

- Research - Europe notoriously spends too little on military research, and only a small proportion of this money is spent on European cooperation. Far better military research coordination is indispensable and the somewhat artificial distinction between civil and military research must be overcome to encourage potential synergies.
- Market - Different national regulatory frameworks are a major cause of inefficiency, so a European defense equipment market with a single set of rules and regulations for procurement, competition, transfers and exports would be a major step towards not only industrial cooperation but also greater transnational competition.³⁰¹

Official establishment of the EDA demonstrated that European countries would be able to improve their military capabilities if they take advantage of cooperation. In this context, the EDA will have tasks envisaged as:

- Contributing to the identification of EU member states' military capability objectives and evaluating observance of their capability commitments;
- Promoting harmonization of operational needs and adoption of effective, compatible procurement methods;
- Proposing multilateral projects to fulfill the objectives in terms of military capabilities, ensuring coordination of the programs implemented by the member states and management of specific cooperation programs;
- Supporting defense technology research, and coordinating and planning joint research activities, as well as the study of technical solutions to meet future operational needs;
- Contributing to the identification and, if necessary, the implementation of any useful measure for strengthening the industrial and technological base of the defense sector and for improving the effectiveness of military expenditure.³⁰²

In light of the traditional divergences of Europeans on armaments issues, setting up such an agency was an impressive achievement. The EDA plans to be fully operational before the end of 2005. The EDA will be complementary, in particular, by setting links between European capabilities and armaments consisting of the defense

³⁰¹ Burkard Schmitt, *Progress Towards the European Defense Agency* (Paris: EU Institute for Security Studies, Winter, 2004), <http://www.iss-eu.org/new/analysis/analy075.html> (accessed April 13, 2005).

³⁰² Ibid.

industry, R&D and procurement.³⁰³ Any project or improvement under the agency, including material or organizational, would help to solve European shortfalls, and by doing so, the new agency would contribute to the reinforcement of NATO capabilities.

7. The Way Ahead

Since 1999, the capability improvements of the European forces under the Headline Goal created plenty of room for rationalizing European capabilities. In this context, cooperation between NATO and EU would be crucial to prevent unnecessary duplication. The ECAP and PCC have been working together in six areas, however, co-operation needs to be intensified into more areas in which the NATO-EU Capability Group would continue to play a key role in coordination.

The combined defense budgets of the European Allies amount to nearly \$175 billion, which is much less than the U.S. defense budget, but it is considerable amount of money as a whole. Nevertheless, the bulk of the European defense budgets are devoted to personnel and infrastructure rather than procurement or investments. Therefore, it is necessary to reexamine and change the ratio of defense budgets in order to have effective capabilities and to ensure the commitments made for the PCC.

In spite of the fact that there has been no considerable change in the European defense budgets since the late 1990s, the Allies have created various groups for multinational co-operation to focus on critical combat shortfalls. In this context, pooling of current capabilities, specialization, and jointly owned and jointly operated military assets would help to generate essential capabilities. Moreover, consolidation of defense industries within Europe and on each side of the Atlantic would facilitate the capability transformation process in which national regulations produced fragmented defense industries and diminished the competition. From this point, the framework of the EDA would establish a close link between the capability transformation process and defense industries. As a result, EDA would harmonize the military requirements and provide more common projects in order to produce cost-effective outcomes for capability development.

³⁰³ Burkard Schmitt, "European Capabilities," in *EU Security and Defense Policy: The First Five Years (1999-2004)*, ed. Nicole Gnesotto (Paris: EU Institute for Security Studies, 2004), p. 101.

V. CONCLUSION

NATO capability transformation has always been on the agenda of NATO. Operation Allied Force and the challenges and potential threats of the 21st century have compelled the Alliance to accelerate the capability transformation process. Operation Allied Force revealed significant concerns about the growing gap between the United States and European Allies. In addition, the imbalance in the military capabilities of the Alliance caused an unhealthy division of labor and burden-sharing debates, which might undermine NATO's operational capability. In order to achieve NATO's probable missions, the members of the Alliance must share the principal responsibility for collective defense equally, along with all costs and risks.

In accordance with the Alliance's Strategic Concept, the DCI sought to address the broad and clear requirements of the new security environment that NATO members must have to both carry out the full range of missions and narrow the growing capability gap. All European members were active participants of the DCI, which focused on 58 goals, including the following main areas: deployability and mobility, sustainability, effective engagement and information systems. The HLSG integrated the DCI goals into NATO Force Goals and provided coordination and harmonization of Alliance capability commitments. In addition, European Allies had already launched some national initiatives and the DCI gave impetus to this process to reduce the capability gap. Therefore, the DCI represented a high level of support and commitments from European Allies during its early stages within Allies' firm commitments to address capability shortfalls.

The DCI could not get sufficient support from NATO's force planning process despite the way DCI goals were translated into NATO's Force Goals. The reason is that the force planning process is not an enforcement mechanism for NATO members, since NATO could request or suggest a military capability for member states, but national governments have the authority to make the final decision to carry out a given capability. In spite of this weakness, the DCI made progress in certain areas in 2001. However, European Allies had to put forth more efforts to achieve necessary improvements because

there were a number of critical and long-standing deficiencies that needed to be addressed. To accelerate the efforts of the European Allies, it was necessary to make effective use of existing resources and to engage more directly in decisions on potential multinational projects for co-operative solutions.

More than two years after the launch of the DCI, the European Allies had almost completed 18 goals of the DCI, had reached the middle stage for 22 goals, and had started work on 18 goals. The capability transformation was slowed due to several reasons. Initially, the acquisition of some capabilities, such as low technology assets, was only looking for options, but the financial nature of the assets restricted the procurement programs. In addition, high-cost assets required major research and development of new systems and technologies as well as further funding. Furthermore, despite the European Allies' commitments, some of the areas could not get priority due to the diverging threat assessments of member states. The DCI presented a broad picture for capability improvements without setting priorities which meant that European Allies could easily find excuses not to provide necessary assets. Finally, there were no specific target dates for fulfilling essential capabilities. The DCI achieved progress but it was not sufficient to carry out the full range of NATO operations and narrow the transatlantic gap. The key enabling capabilities remained unsolved in regards to the restrictions, and most of the members duplicated the defense activities that marginalized the defense spending of the European Allies.

After 11 September 2001, the threat assessment fundamentally changed and required an immediate update in military capabilities, particularly for the European Allies, to ensure that NATO members could be equipped for all kind of missions from peacekeeping to the most demanding forms of combat. NATO must have the capability to deploy flexible and well-armed forces to anywhere in the world on short notice. In this context, the capability transformation process needed common strategic direction to shape force modernization of the European Allies, and NATO adopted new capability initiatives gathered in three major themes: PCC, NRF and the streamlining of NATO's military command structure.

The PCC initially included key differences compared to the aspects of the DCI. The PCC was more focused on specific areas within an identified time limit, which did not exist in the DCI. In addition, the PCC put a much bigger emphasis on role specialization, pooling of military capabilities and multinational cooperation for the acquisition of assets. Finally, the PCC included agreements by individual nations to implement specific areas in capabilities themselves. All of the differences provided a common strategic direction for the force transformation process.

The PCC is a long-term project: 30 percent of the commitments are to be implemented by the end of 2005 and 50 percent could be put into effect by 2007 or 2008. Therefore, to draw a complete picture of the capability assessment is not easy, but it could be analyzed by doing a progress assessment. The PCC demonstrated that European Allies had learned the lessons of previous initiatives and they made firm and specific political commitments to bring about improvements while making better use of available resources. In fact, most of the European Allies strongly favored multinational cooperation. Afterwards, the European Allies created various groups and signed letters of intent to cooperate for the development of particular capabilities that reduced affordability concerns and increased the interoperability among the Allies. The Allies achieved notable progress in the following areas:

- beside the acquisition programs for the A400M, the decision to charter the AN-124 for airlift capability;
- the establishment of European Air-lift Co-ordination Center;
- assured access to three roll-on/roll-off ships and arranged residual capacity to four roll-on/roll-off ships for sealift capability;
- the establishment of the Sea-lift Co-ordination Center;
- the program for jointly owned and operated air-to-air refueling fleet;
- cooperation to produce UAVs;
- tremendous increase in the precision strike capability with PGMs;
- operational capability of the CBRN Defense Battalion for NBC weapons;

- a contract with the TIPS consortium to complete the current definition phase of the AGS program;
- progress in NATO's ALTBM program including national and cross-national MD/TMD projects.

These are some of the tangible results of improvements in which European Allies pledged at the Prague Summit for key enabling capabilities, to present deployability, sustainability, information superiority and combat effectiveness at the Prague Summit.

NATO brought the concept of a rapid reaction force into a reality within less than a year, and by reaching initial operational capability in 2004, it marked another major step to the capability transformation process. The NRF is to be a high-readiness force that has the ability to begin deployment after receiving a five day notice and to sustain itself for up to 30 days of operations or longer if re-supplied. The force structure will include over 20,000 troops, a land component made up of one brigade combat team with forced entry capability, an air component which will have 72 combat aircraft capable of 200 sorties a day, and a naval component which have a carrier battle group, an amphibious task group and a surface action group when it reaches full operational capability by 2006. In this context, the NRF served as a catalyst to focus on improvements in Europe's overall military capabilities, along with the PCC, and the achievements in the NRF reflected the performance of European Allies in carrying out the capability commitments. The contributions of the European Allies to the NRF were much greater than anticipated. These contributions were significant due the fact that the land, air and maritime forces of the NRF gained high standards on a rotational basis and these high standards spread across the full structure of the European Allies' forces. The NRF consists predominantly of European forces and has come closer to the planned full operational capability. However, the NRF is currently ready for the full spectrum of NATO operations, which might be either high intensity operations or less demanding tasks as regards Article-V or non-Article V operations.

NATO's command structure was based on a geographic division of responsibilities and was designed to fight in place with a fixed contribution of forces based on Cold War legacy. NATO decided to make it more flexible to run a joint task

force and to prevent unnecessary duplication. The new NATO command structure achieved considerable progress when it was put in place eight months after the Prague Summit. ACO was designed to embrace all NATO commands in Europe and it also included the area responsibility of the former SACLANT, which was decommissioned. The number of headquarters under SHAPE streamlined and regional headquarters declined from 11 to 3 operational subordinate commands, the number of JFCCs reduced from 13 to 6 operational commands in the component level of the new structure, and the number of the CAOCs declined to six, comprised of two deployable and four static CAOCs. As a result, overlapping and confusion in the line of authority were clarified as well as the new structure offered represented a clear division of labor between the ACO and ACT.

The creation of ACT was the most significant milestone in the capability transformation process because the goal of ACT is to promote capability transformation and interoperability among the Allies' forces. ACT was also co-located with the U.S. JFCOM, which developed the transatlantic link in order to allow close interaction in transformation between the United States and the European Allies, because ACT serves to bridge the capability gap while coordinating training, doctrines and the use of transformational technology between the United States and the European Allies.

The Istanbul Summit gave further shape and direction to the transformation process with the purpose of demanding better force generation and force planning procedures from the Allies. NATO members have vast quantities of personnel and equipment available for operations, but a small increase is still needed. Therefore, the Allies set up a connection between the long-term force planning system and the way of generating forces for possible NATO operations. The work is well under way to guide the development of Allies' forces up to 2010 and beyond, which would make the process predictable and useful for Allied commanders and national resource planners. In addition, the European Allies committed to restructure in order to build a force structure that has 40 percent deployability and 8 percent sustainability. The Allies are still working to reach these capabilities, which will enhance the operational capability of NATO.

NATO and EU have overlapping members and since 1999 both institutions had almost the same goals to improve military capabilities. Operation Allied Force as well as new threats and challenges of the 21st century also became driving factors in the capability transformation of the EU. The Headline Goal created plenty of room for rationalizing European capabilities and it also achieved considerable progress in military capabilities. The creation of the NATO-EU Capability Group, meant to keep the military transformation process complementary and supportive, was a constructive step, and the close cooperation of NATO and EU would be crucial in the transformation process to prevent unnecessary duplication. In this context, the ECAP and PCC have been working together in six key areas but there are still concerns that co-operation has not really taken off yet in some areas. In addition, the EU Battlegroups and the NRF have nearly the same concept and both of the institutions rely on forces drawn from almost the same countries. If the NATO and EU have to carry out operations in two theatres, it might be difficult for the same members to provide essential forces. Consequently, NATO and EU aim to develop military capabilities of the same sources, therefore they have to establish deeper integration and practical cooperation in order to ensure coherent, transparent and mutually reinforcing improvements for NATO and EU.

Defense expenditures of NATO members have been a major concern during the capability transformation process and NATO officials have always emphasized that European Allies had to increase their defence expenditures in order to close the existing gap. However, the United States increased its defence spending by 29 percent while the European Allies almost kept the same level with a mere 1 percent increase since 1999. It is clear that a substantial increase in U.S. defence spending was related to the terrorist attack, but this trend has not been mirrored in Europe. In addition, the European Allies were more concerned with domestic issues and defence spending could not get budgetary priority. It is likely that a constant level in military expenditures will continue for foreseeable future. Therefore, it is crucial for European Allies to balance the ratio of their spending for personnel, equipment and R&D in order to allow a more efficient use of scarce resources. The fact is that most of the programs in the transformation process face severe budgetary restrictions. Therefore, the European Allies should reexamine and shift their defense budgets in favor of the military equipment as well as R&D. In addition, the

European Allies not only have to spend more effectively, they also have to spend more to deliver the essential capabilities.

NATO could also enhance its military capability by using more systematic ways such as increasing transparency and integration in defense industries, encouraging specialization, increasing the number of pooled capabilities, and establishing joint owned and joint operated assets.

Pooling of capabilities is one of the necessary strategies to make up for shortcomings in capabilities. Despite some efforts under the PCC, there still remains a considerable degree of duplication in military assets. Therefore, NATO should enhance the number of pooled capabilities to gain more financial savings, which would allow a decrease in the operating and support costs of military assets if it would be on a shared basis. In the light of budgetary restrictions, specialization of niche capabilities would also be a positive way to ensure the efficiency in overall defense spending of the European Allies and reduce the costs of duplicative national efforts. Furthermore, jointly owned and operated programs would allow the acquisition of high-cost military assets. The fact is that high-cost assets should not be designated to the responsibility of any single nation. The AGS program is an ongoing and positive development under the PCC, however the acquisition of strategic air and sealift or air-to-air capability within jointly owned and operated programs would provide considerable savings and the money saved would be used to fulfill other shortcomings.

The implementation of the capability transformation process reinforces the cooperation in defense industries on each side of the Atlantic. The consolidation of the industries could bring more efficiency to defense procurement, increased competition for acquisition programs, and the opportunities to take advantage of critical emerging technologies. The European defense groups have not achieved significant agreements through a consolidated transatlantic defense industry yet, because the rules and procedures for direct foreign investment or the regulations on export controls and technology transfers prevented flexible defense trade. DTSI was to remove unnecessary impediments on defense trade but the reforms have yet to be implemented and thus have not materialized. At the Prague Summit, the United States called for a review all aspects

of barriers in order to facilitate transatlantic cooperation, but no official results have been publicized yet. Current defense trade laws and policies of the United States prevent the transatlantic competitiveness of the defense industries. The regulations could not offer economic, technological and operational advantages for European Allies and the United States, which would accelerate the capability transformation of NATO forces.

The European Allies have great differences in their national regulations, which prevent the consolidation of the defense industry and causes additional acquisition costs. Export controls, defense trade laws and national prerogatives caused the fragmentation in defense industries and produced the loss of competitiveness among European Allies. European Allies have to reduce costs for R&D and procurement; therefore they should rationalize the internal regulations for restructuring the transnational defense industry in Europe. Regarding the current restrictions, the creation of the EDA is an impressive achievement, if the European Allies can take the advantage of cooperation. The EDA would be complementary, in particular, by setting links between European capabilities and armaments consisting of the defense industry, R&D and procurement. In summary, any improvement under the agency would contribute to the reinforcement of the ongoing NATO capability transformation process.

Today, the future balance between the military capabilities of the European Allies and the United States remains an open question. However, PCCs provided a common strategic direction that encouraged multinational cooperation and nation-specific commitments. The NRF moves the Allies' force structure to the highest standards and serves as a catalyst for further upgrades. Streamlining the command structure overcomes the challenges of deploying combined and joint military forces and clarifies the lines of authority. ACT serves as a coordinator and establishes close links among Allies' forces and reduces interoperability concerns. The Allies are working hard to set better and predictable force generation and planning procedures as well as restructuring more deployable and sustainable forces. But, despite this encouraging progress in the capability transformation process, NATO and EU still do not have a deeper integration and practical cooperation in regards to forces supplied by overlapping groups of countries. Capability improvements still face budgetary restrictions and imbalances between budgets for personnel, equipment and R&D persist. The number of pooled forces could not be

expanded because of national prerogatives and there is no clear coordination for specialization and niche capabilities to reduce duplication. Current defense trade laws limit defense industry cooperation on each side of the Atlantic, prevent the flow of advanced defense technologies, and restrict the economic advantages to capability transformation. The Allies still maintain national preferences and regulations that prevent the consolidation of the defense industries in Europe. The principles of common funding could not truly support the capability transformation of the Alliance. The capability transformation is a never ending process, but NATO has to overcome overall obstacles in order to build an effective military force structure and bridge the capability gap among its member states.

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BIBLIOGRAPHY

- Adams, Gordon. "Fortress America in a Changing Transatlantic Defense Market." In *Between Cooperation and Competition: The Transatlantic Defense Market*, edited by Burkard Schmitt. Paris: Institute for Security Studies of WEU, January, 2001.
<http://www.iss-eu.org/chaillot/chai44e.pdf> (accessed December 30, 2004).
- Appathurai, James. *Closing the Capabilities Gap*. Belgium: NATO Public Diplomacy Division, 2002. <http://www.nato.int/docu/review/2002/issue3/english/art1.html> (accessed September 25, 2004).
- Assembly of Western European Union. The Interparliamentary European Security and Defense Assembly. *European Defense: Pooling and Strengthening National and European Capabilities – Reply to the Annual Report of the Council*. December 3, 2003. http://assembly-weu.itnetwork.fr/en/documents/sessions_ordinaires/rpt/2003/1842.html (accessed February 12, 2005).
- Bakken, Bent Erik. *(When) Can Europe Match US' Military Power*. Norwegian Defense Research Establishment Division for Analysis, 2004.
<http://cgi.albany.edu/~sdsweb/sdsweb.cgi?P319> (accessed March 1, 2005).
- Beggert, William J. "Kosovo and Theater Air Mobility." *Aerospace Power Journal*, no.4, (Winter 1999). <http://www.airpower.au.af.mil/airchronicles/apj/apj99/win99/begert.htm> (accessed September 15, 2004).
- Bennett, Christopher. Interview with Admiral Ian Forbes. "In the Wake of Iraq." *NATO Review*, no. 2, (Summer 2003).
<http://www.nato.int/docu/review/2003/issue2/english/interview.html> (accessed January 19, 2005).
- Bloomfield, Lincoln P. *Status of U.S. Interagency Review of U.S. Export Licensing and Technology Transfer Policy*. Conference on Transatlantic Defense Industrial Cooperation: Challenges and Prospects, Brussels, July 18, 2003.
<http://www.state.gov/t/pm/rls/rm/22537.htm> (accessed March 2, 2005).
- Borawski, John and Thomas-Durell Young. *NATO After 2000, The Future of the Euro-Atlantic Alliance*. Connecticut: Praeger Publishers, 2001.
- Brooks, Kathleen Millerand Caroline. *Export Controls in the Framework Agreement Countries*. Washington D.C.: The British American Security Information Council, July, 2001.
http://www.basicint.org/pubs/Research/2001ExportControls1.htm#EXECUTIVE_SUMMARY (accessed March 1, 2005).

Calha, Julio M. *Reform of NATO Command Structure and the NATO Response Force*. NATO Parliamentary Assembly. Sub-committee on Transatlantic Defense and Security Co-operation, November, 2003. <http://www.nato-pa.int/default.asp?TAB=365> (accessed January 12, 2005).

Center for Law and Military Operations. *Law and Military Operations in Kosovo: 1999-2001 - Lessons Learned for Judge Advocates*. Virginia: The Judge Advocate General's School, December 15, 2001. <https://www.jagcnet.army.mil/JAGCNETInternet/Homepages/AC/CLAMO-Public.nsf/0/e8f443ceaed1c96585256b5f007911b6?OpenDocument> (accessed September 20, 2004).

Chao, Pierre A. *NATO AGS – Finally Ready to Fly?* Washington D.C.: Center for Strategic International Studies, June 24, 2004. http://csis.org/europe/040624_NATO_AGSRpt.pdf (accessed January 11, 2005).

Cornu, Christophe. "Fortress Europe-Real or Virtual?" In *Between Cooperation and Competition: The Transatlantic Defense Market*, edited by Burkard Schmitt. Paris: Institute for Security Studies of WEU, January, 2001. <http://www.iss-eu.org/chaillot/chai44e.pdf> (accessed December 30, 2004).

Davis, Ian. *NATO and Missile Defense: Stay Tuned This Could Get Interesting*. Washington D.C.: The British American Security Information Council, June 30, 2004. <http://www.basicint.org/pubs/Notes/2004NATOMissileDefense-IstanbulSummit.htm> (accessed January 19, 2005).

European Union. Council of the European Union. *ESDP Presidency Report*. December 9, 2003. <http://register.consilium.eu.int/pdf/en/03/st15/st15814.en03.pdf> (accessed January 12, 2005).

European Union. Council of the European Union. *Headline Goal 2010*. May 17, 2004. <http://ue.eu.int/uedocs/cmsUpload/2010%20Headline%20Goal.pdf> (accessed February 12, 2005).

European Union. Council of the European Union. *Policies, Security & Defense, European Defense Agency* http://ue.eu.int/cms3_fo/showPage.asp?id=277&lang=EN (accessed February 3, 2005).

European Union. EU Fact Sheets. *The EU Battlegroups and The EU Civilian and Military Cell*. February, 2005. http://europa.eu.int/comm/external_relations/us/bush/battlegroups.pdf (accessed March 1, 2005).

Evans, Michael. "General wanted US to call the shots in Kosovo." *The Times (UK)*, January 27, 2000. <http://agitprop.org.au/stopnato/20000128genertimuk.php> (accessed September 25, 2004).

Everett, James R. *NATO's New Strategic Concept, Kosovo and the Implications for the Intelligence*. Carlisle Barracks, Pennsylvania: U.S. Army War College.
<http://handle.dtic.mil/100.2/ADA377485> (accessed September 18, 2004).

Fulghum, David A. and Robert Wall. "Weapons, Intelligence Targeted in Probe." *Aviation Week and Space Technology*, Volume 151, Issue 4, July 26, 1999.
<http://proquest.umi.com/pqdweb?index=54&did=000000047032178&SrchMode=1&sid=1&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1098780583&clientId=11969> (accessed September 15, 2004).

Gallis, Paul E. *Kosovo: Lessons Learned from Operation Allied Force*. Washington, D.C.: Congressional Research Service, Library of Congress, November 19, 1999.
<http://www.globalsecurity.org/military/library/report/crs/RL30374.pdf> (accessed September 28, 2004).

Garden, Tim. *European Defense: Creating Consensus and Capability*. October 11, 2004.
<http://www.tgarden.demon.co.uk/writings/articles/2004/041011nl.html> (accessed January 25, 2005).

Garden, Tim. *What Can We Afford?* A panel contribution about Europe and America: A New Strategic Partnership, February 18, 2002.
<http://www.tgarden.co.uk/writings/articles/2002/020218riia.html> (accessed December 6, 2004).

Gompert, David C. Richard L. Kugler and Martin C. Libicki. *Mind the Gap: Promoting a Transatlantic Revolution in Military Affairs*. Washington D.C.: The Institute For National Strategic Studies, National Defense University Press, March, 1999).
<http://www.ndu.edu/inss/books/books%20-%201999/Mind%20the%20Gap%20March%201999/MGap.pdf> (accessed September 15, 2004).

Gompert, David C. and Uwe Nerlich. *Shoulder to Shoulder, The Road to U.S.-European Military Cooperability*. Santa Monica: Rand Cooperation, 2002.

Grant, Charles and Tim Garden. "Europe could pack a bigger punch." *Financial Times* (December 17, 2002). http://www.cer.org.uk/articles/grant_ft_17dec02.html (accessed January 6, 2005).

Grant, Robert P. *The RMA: Europe can keep in step*. Paris: The Institute for Security Studies of Western European Union, June, 2000. <http://www.iss-eu.org/occasion/occ15.html> (accessed October 5, 2004).

Haine, Jean-Yves. *European Defense: A Proposal for a White Paper*. Paris: EU Institute for Security Studies, May 2004.

Heisbourg, Francois. *Emerging European Power Projection Capabilities*. Geneva Center for Security Policy, July 15-16, 1999.

http://www.gcsp.ch/e/meetings/Research_Seminars/RAND/1999/ (accessed September 18, 2004).

Hill, Luke. "NATO's build-up to Prague." *Jane's Defense Weekly*, November 13, 2002. http://www.janes.com/regional_news/europe/news/jdw/jdw021113_1_n.shtml (accessed January 1, 2005).

Hill, Luke. "NATO Warned on Capabilities Gap." *Jane's Defense Weekly*, May 29, 2002. <http://jdw.janes.com/> (accessed December 12, 2004).

Ibrugger, Lothar. *Missile Defense and Weapons in Space*. NATO Parliamentary Assembly. Sub-Committee on the Proliferation of Military Technology, November, 2004 <http://www.nato-pa.int/default.asp?TAB=497> (accessed January 13, 2005).

Institute for Security Studies. *EU Security and Defense, Core Documents 2004*. Paris: EU Institute for Security Studies, February, 2005). <http://www.iss-eu.org/chaillot/chai75e.pdf> (accessed February 2, 2005).

Jones, Elizabeth A. *The Road to NATO's Prague Summit: New Capabilities, New Members, New Relationships*. Speech to the World Affairs Council of Northern California San Francisco, California, October 21, 2002. <http://www.state.gov/p/eur/rls/rm/2002/14609.htm> (accessed January 9, 2005).

Kennelly, Dennis and Ben Stone. *Bush Team Reviewing Defense Trade Policy*. National Defense Industrial Association, April 2003. http://www.nationaldefensemagazine.org/issues/2003/apr/Bush_Team.htm (accessed March 1, 2005).

Lambert, Benjamin S. *NATO's Air War for Kosovo: A Strategic and Operational Assessment*. Santa Monica: RAND Cooperation, 2001. <http://www.rand.org/publications/MR/MR1365/MR1365.ch8.pdf> (accessed September 28, 2004).

Lindborg, Chris. *NATO Obviously Has to Move Ahead*. An Interview with NATO's Jamie Shea. Basic Publications, Washington D.C.: The British American Security Information Council, April, 2002. <http://www.basicint.org/pubs/BReports/BR80.htm> (accessed January 6, 2005).

Lindstrom, Gustav. *The Headline Goal*. Paris: EU Institute for Security Studies, 2005. <http://www.iss-eu.org/esdp/05-gl.pdf> (accessed February 25, 2005).

Mariano, Stephen J. and Brendan Wilson. *NATO Response Force: Political Deftness, Economic Efficiency, Military Power*. Strategic Insight, Center for Contemporary Conflict, U.S. Naval Post Graduate School, April 1, 2003. <http://www.ccc.nps.navy.mil/si/apr03/europe.asp> (accessed January 6, 2005).

Mawdsley, Jocelyn and Gerrard Quille. *Equipping the Rapid Reaction Force*. Bonn International Center for Conversion, 2003.

<http://www.bicc.de/publications/papers/paper33/paper33.pdf> (accessed January 22, 2005).

Missiroli, Antonia. *Defense Spending in Europe: Is Europe Prepared to Pay for Improved Capabilities*. Paper given at the Conference on ESDP, December 13-15, 2001.

<http://www.iss-eu.org/new/analysis/analy018.html> (accessed January 6, 2005).

Missiroli, Antonio. *From Copenhagen to Brussels, European Defense Core Documents*. Paris: EU Institute for Security Studies, December, 2003.

<http://www.ciaonet.org/wps/mia04/mia04.pdf> (accessed February 8, 2005).

Monaca, Annalisa. *NATO-EU Relations State of Play as EU Takes Over in Bosnia*. Basic Publications, December 7, 2004. <http://www.basicint.org/update/NATO041207.htm> (accessed March 1, 2005).

North Atlantic Treaty Organization. ACT Missions. *Fact Sheet: Joint Analysis Lessons Learned Centre*. Virginia: Supreme Allied Commander Transformation Public Information Office. http://www.act.nato.int/multimedia/facts/act_jallc_fact_sheet.pdf (accessed January 15, 2005).

North Atlantic Treaty Organization. ACT Missions. *Fact Sheet: Joint Warfare Centre*. Virginia: Supreme Allied Commander Transformation Public Information Office. http://www.act.nato.int/multimedia/facts/act_jwc_fact_sheet.pdf (accessed January 15, 2005).

NATO. ACT Missions. *Fact Sheet: Joint Force Training Centre*. Virginia: Supreme Allied Commander Transformation Public Information Office. <http://www.act.nato.int/multimedia/facts/actxjftcxfactxsheet.pdf> (accessed January 15, 2005).

North Atlantic Treaty Organization. NATO Handbook. The Transformation of the Alliance. *NATO's Defense Capabilities Initiative*. October 8, 2002. <http://www.nato.int/docu/handbook/2001/hb0205.htm> (accessed January 3, 2005).

North Atlantic Treaty Organization. The Istanbul Summit Media Guide. *Capabilities*. June 23, 2004. <http://www.nato.int/docu/comm/2004/06-istanbul/press-kit/005.pdf> (accessed January 6, 2005).

North Atlantic Treaty Organization. NATO Library. *AWACS: NATO's Eyes in the Sky*. Brussels: NATO Public Diplomacy Division, November, 2004. <http://www.nato.int/issues/awacs/brochure/awacs.pdf> (accessed December 13, 2004).

North Atlantic Treaty Organization. NATO Library. *Istanbul Summit Reader's Guide*. Brussels: NATO Public Diplomacy Division, November 2004. <http://www.nato.int/docu/rdr-gde-ist/rdr-gde-ist-e.pdf> (accessed January 6, 2005).

North Atlantic Treaty Organization. NATO Library. *NATO Response Force: Deploying Capabilities Faster and Further than Ever Before*. Brussels: NATO Public Diplomacy Division, May, 2004. <http://www.nato.int/docu/briefing/nrf-e.pdf> (accessed October 16, 2004).

North Atlantic Treaty Organization. NATO Library. "Strengthening Defense Capabilities." In *NATO Transformed*. Brussels: NATO Public Diplomacy Division, May 2004.

North Atlantic Treaty Organization. NATO Library. *The Prague Summit and NATO's Transformation*. Brussels: NATO Public Diplomacy Division, 2003.

North Atlantic Treaty Organization. NATO Topics. *NATO-EU: A Strategic Partnership*. December 2, 2004. <http://www.nato.int/issues/nato-eu/eu-responsability.html> (accessed February 4, 2005).

North Atlantic Treaty Organization. NATO Update. *New NATO Transformation Command Established*. June 18, 2003. <http://www.nato.int/docu/update/2003/06-june/e0618a.htm> (accessed January 14, 2005).

North Atlantic Treaty Organization. NATO Update. *Response Force Ready for Missions*. October 13, 2004. <http://www.nato.int/docu/update/2004/10-october/e1013a.htm> (accessed January 19, 2005).

NATO Parliamentary Assembly. Committee Summary Meetings, Summary of the Meeting of the Science and Technology Committee, Reduta, Bratislava, Slovakia, May 29, 2004. <http://www.nato-pa.int/default.asp?TAB=517> (accessed January 5, 2005).

NATO Parliamentary Assembly. Defense and Security Sub-Committee on Future Security and Defense Capabilities. Interim Report. *NATO's Role in Defense Role*. October, 2001. <http://www.nato-pa.int/archivedpub/comrep/2001/au-199-e.asp> (accessed January 7, 2005).

NATO Parliamentary Assembly. Defense and Security Sub-Committee on Future Security and Defense Capabilities. Interim Report. *The Defense Capabilities Initiative and NATO's Strategic Concept*. November, 2000. <http://www.nato-pa.int/archivedpub/comrep/2000/at-245-e.asp> (accessed December 9, 2004).

NATO Parliamentary Assembly. Defense and Security. General Report. *National Missile Defense and the Alliance after Kosovo*. November, 2000. <http://www.nato-pa.int/archivedpub/comrep/2000/at-243-e.asp> (accessed January 9, 2005).

North Atlantic Treaty Organization. NATO Press Release. *Defense Capabilities Initiative*. NAC-S(99)69, April 25, 1999. <http://www.nato.int/docu/pr/1999/p99s069e.htm> (accessed January 3, 2005).

North Atlantic Treaty Organization. NATO Press Release. *Istanbul Summit Communiqué*. (2004)096, June 28, 2004. <http://www.nato.int/docu/pr/2004/p04-096e.htm> (accessed January 19, 2005).

North Atlantic Treaty Organization. NATO Press Release. Ministerial Meeting of the Defense Planning Committee and the Nuclear Planning Group held in Brussels (2003)64, June 12 2003. <http://www.nato.int/docu/pr/2003/p03-064e.htm> (accessed January 5, 2005).

North Atlantic Treaty Organization. NATO Press Release. *NATO AGS Radar Cooperation Statement of Intent*. (2002)136, November 21, 2002. <http://www.nato.int/docu/pr/2002/p02-136e.htm> (accessed January 12, 2005).

North Atlantic Treaty Organization. NATO Press Release. *NATO's Alliance Ground Surveillance Program Gains Momentum*. 2005(55), April 28, 2005. <http://www.nato.int/docu/pr/2005/p05-055e.htm> (accessed April 12, 2005).

North Atlantic Treaty Organization. NATO Press Release. *Prague Summit Declaration*. (2002)127, November 21, 2002. <http://www.nato.int/docu/pr/2002/p02-127e.htm> (accessed January 4, 2005).

North Atlantic Treaty Organization. NATO Press Release. Press Statement for the Meeting of the North Atlantic Council in Defense Ministers Session. (2004)100, June 27, 2004. <http://www.nato.int/docu/pr/2004/p04-100e.htm> (accessed January 11, 2005).

North Atlantic Treaty Organization. NATO Press Release. *Statement on Capabilities*. (2002)074, June 6, 2002. <http://www.nato.int/docu/pr/2002/p02-074e.htm> (accessed October, 16, 2004).

North Atlantic Treaty Organization. NATO Press Release. *Statement on the Defense Capabilities Initiative*. M-NAC-D-1 (2001)89, June 7, 2001. <http://www.nato.int/docu/pr/2001/p01-089e.htm> (accessed January 7, 2005).

North Atlantic Treaty Organization. NATO Press Release. *Statement on Capabilities Initiative*. (2003)66, June 12, 2003. <http://www.nato.int/docu/pr/2003/p03-066e.htm> (accessed January 11, 2005).

North Atlantic Treaty Organization. NATO Press Release. Press Statement for the Meeting of the Defense Planning Committee in Ministerial Session in Istanbul. (2004)101, June 27, 2004. <http://www.nato.int/docu/pr/2004/p04-101e.htm> (accessed January 19, 2005).

North Atlantic Treaty Organization. NATO Press Release. *The Alliance's Strategic Concept*. NAC-S(99)65, April 24, 1999. <http://www.nato.int/docu/pr/1999/p99-065e.htm> (accessed January 3, 2005).

North Atlantic Treaty Organization. NATO Publications. *The Principles of Common Funding*. October 19, 2002. <http://www.nato.int/docu/handbook/2001/hb0901.htm> (accessed February 23, 2005).

North Atlantic Treaty Organization. SHAPE. *A New Name for Allied Command Europe (ACE): Allied Command Operations (ACO)*. September 1, 2003. <http://www.nato.int/shape/news/2003/09/i030901.htm> (accessed January 11, 2005).

North Atlantic Treaty Organization. SHAPE. *New Command Structure*. May 4, 2004. http://www.nato.int/shape/issues/ncs/ncs_index.htm (accessed January 3, 2005).

North Atlantic Treaty Organization. NATO Speeches. Conference on *Transatlantic Defense Industrial Cooperation Challenges and Prospects*. Keynote address by NATO Secretary General, Lord Robertson at Residence Palace, Brussels, July 18, 2003. <http://www.nato.int/docu/speech/2003/s030718b.htm> (accessed February 23, 2005).

North Atlantic Treaty Organization. NATO Speeches. *Defense and Security in an Uncertain World*. Keynote Speech by NATO Secretary General Lord Robertson at Forum Europe, Brussels, May 17, 2002. <http://www.nato.int/docu/speech/2002/s020517a.htm> (accessed January 6, 2005).

North Atlantic Treaty Organization. NATO Speeches. *Multinational CBRN Defense Battalion - Progress Report*. Contribution of the Czech Republic's Minister of Defense Miroslav Kostelka to the NATO Defense Ministerial Meeting, December 1, 2003. <http://www.nato.int/docu/speech/2003/s031201c.htm> (accessed January 6, 2005).

North Atlantic Treaty Organization. NATO Speeches. *NATO: A Vision for 2012, Prague 2002: Challenge and Change for NATO*. Speech by NATO Secretary General, Lord Robertson at the NATO/GMFUS Conference Brussels, October 3, 2002. <http://www.nato.int/docu/speech/2002/s021003a.htm> (accessed January 3, 2005).

North Atlantic Treaty Organization. NATO Speeches. *NATO after the Prague Summit*. NATO Secretary General Lord Robertson at the Konrad Adenauer Stiftung, December 12, 2002. <http://www.nato.int/docu/speech/2002/s021212a.htm> (accessed January 6, 2005).

North Atlantic Treaty Organization. NATO Speeches. *NATO's Istanbul Summit: new mission, new means*. Speech by NATO Secretary General Jaap de Hoop Scheffer at the Royal United Services Institute, London, June 18, 2004. <http://www.nato.int/docu/speech/2004/s040618a.htm> (accessed January 22, 2005).

North Atlantic Treaty Organization. NATO Speeches. *NATO's Political and Military Transformation: Two Sides of the Same Coin*. Speech by NATO Secretary General, Jaap de Hoop Scheffer at NATO Annual Conference, Brussels, April 14, 2005.
<http://www.otan.nato.int/docu/speech/2005/s050414a.htm> (accessed March 3, 2005).

North Atlantic Treaty Organization. NATO Speeches. Press Conference on the NATO Response Force (NRF) by NATO Secretary General Jaap de Hoop Scheffer and General Supreme Allied Commander Europe (SACEUR) James L. Jones, Poiana, Brasov, Romania, October 13, 2004. <http://www.nato.int/docu/speech/2004/s041013b.htm> (accessed January 19, 2005).

North Atlantic Treaty Organization. NATO Speeches. *Projecting Stability*. Speech by NATO Secretary General, Jaap de Hoop Scheffer at the conference "Defending Global Security: The New Politics of Transatlantic Defence Co-operation" organised by the New Defence Agenda, Palais d'Egmont, Brussels, May 17, 2004.
<http://www.nato.int/docu/speech/2004/s040517a.htm> (accessed January 9, 2005).

North Atlantic Treaty Organization. NATO Speeches. Remarks by NATO Secretary General Lord Robertson at the GKN Farnborough Dinner, RAC Club, London, July 25, 2002. <http://www.nato.int/docu/speech/2002/s020725a.htm> (accessed December 6, 2004).

North Atlantic Treaty Organization. NATO Speeches. Remarks by NATO Secretary General, Jaap de Hoop Scheffer at the NATO Response Force (NRF) Change of Command Ceremony, Istanbul, Turkey, June 27, 2004.
<http://www.nato.int/docu/speech/2004/s040627b.htm> (accessed January 23, 2005).

North Atlantic Treaty Organization. NATO Speeches. Remarks by NATO Secretary General Lord Robertson at the ceremony to the Commission of the New Allied Command Transformation, June 19, 2003.
<http://www.nato.int/docu/speech/2003/s030619a.htm> (accessed January 17, 2005).

North Atlantic Treaty Organization. NATO Speeches. *Tackling Terror: NATO'S New Mission*. Speech by NATO Secretary General, Lord Robertson, June 20, 2002.
<http://www.nato.int/docu/speech/2002/s020620a.htm> (accessed January 11, 2005).

North Atlantic Treaty Organization. NATO Speeches. Robertson, Lord. NATO Secretary General. *Rebalancing NATO for a Strong Future*. Defense Week Conference, Belgium, January 31, 2000.
<http://www.nato.int/docu/speech/2000/s000131a.htm> (accessed September 20, 2004).

Pengelly, Rupert. "NATO Transformation – Moving From 'Useless' to Usability." *Jane's International Defense Review*, January 1, 2004.
http://www.janes.com/regional_news/americas/news/idr/idr040106_1_n.shtml (accessed December 1, 2005).

Peters, John E. et al. *European Contributions to Operation Allied Force*. Santa Monica: RAND Cooperation, 2001.

Robbins, Carla A. "No Parades: To All but Americans, Kosovo War Appears a Major U.S. Victory - Display of Military Might Makes Allies, Adversaries Doubt Their Relevance." *Wall Street Journal*, (July 6, 1999).
<http://proquest.umi.com/pqdweb?index=0&did=42915348&SrchMode=1&sid=3&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1116288378&clientId=11969> (accessed May 1, 2005).

Rutten, Maartje. *From St-Malo to Nice, European Defense: Core Documents*. Paris: Institute for Security Studies of Western European Union, May, 2001. <http://www.iss-eu.org/chaillot/chai47e.pdf> (accessed February 5, 2005).

Scheffer, Jaap de Hoop. "Anticipating Istanbul." *NATO Review*, no. 2, (Spring 2004).
<http://www.nato.int/docu/review/2004/issue2/english/art1.html> (accessed January 3, 2005).

Schmitt, Burkard. "European Capabilities." In *EU Security and Defense Policy: The First Five Years (1999-2004)*, edited by Nicole Gnesotto. Paris: EU Institute for Security Studies, 2004.

Schmitt, Burkard. *The European Union and Armaments – Getting a Bigger Bang for the Euro*. Paris: Institute for Security Studies of WEU, August, 2003.
<http://www.ciaonet.org/wps/scb03/scb03.pdf> (accessed March 2, 2005).

Schmitt, Burkard. *Progress Towards the European Defense Agency*. Paris: EU Institute for Security Studies, Winter, 2004. <http://www.iss-eu.org/new/analysis/analy075.html> (accessed April 13, 2005).

Seigle, Greg. "Radar-Jamming Prowlers Played Big Role in the Balkans." *Jane's Defense Weekly*, Volume 32, Issue 1, (July 7, 1999).
<http://home.datawest.net/dawog/vaq132/s19990707prowlers.htm> (accessed September 30, 2004).

Shimkus, John. *Alliance-Wide Progress on Meeting The Prague Capability Commitments*. NATO Parliamentary Assembly. Sub-committee on Transatlantic Defense and Security Co-operation, November, 24, 2004. <http://www.nato-pa.int/default.asp?TAB=489> (accessed January 12, 2005).

Smith, John. *The Development of Response Force in NATO and the EU and the Evolving NATO-EU Relationship*. NATO Parliamentary Assembly. Sub-committee on Future Security and Defense Capabilities, November, 14, 2004. <http://www.nato-pa.int/default.asp?TAB=488> (accessed January 6, 2005).

Stalenheim, Petter. *SIPRI Yearbook 2004 – Armaments, Disarmament and International Security, Table of NATO Military Expenditure by Category*. Stockholm International Peace Research Institute, 2004. http://www.sipri.org/contents/milap/milex/mex_nato_94-03.pdf (accessed February 3, 2005).

Taylor, Claire. *NATO: Prague Summit and Beyond*. London: International Affairs and Defense Section, House of Commons Library, January 16, 2003. <http://www.parliament.uk/commons/lib/research/rp2003/rp03-005.pdf> (accessed January 3, 2005).

The International Institute for Strategic Studies. “European Defense Forces.” In *Military Balance 2002-2003*. London: Oxford University Press, 2002.

The International Institute for Strategic Studies. “Defense Economics: NATO and Non-NATO Europe.” In *Military Balance 2002-2003*. London: Oxford University Press, October 2002.

The International Institute for Strategic Studies. “Lessons from Kosovo: Military Operational Capabilities.” In *Military Balance 1999-2000*. London: Oxford University Press, 1999.

Thomas, James E. *The Military Challenges of Transatlantic Coalitions*. London: The International Institute for Strategic Studies, 1999. <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

Tiron, Roxana. *European Defense Agency Raising Hackles in the United States*. National Defense Industrial Association, August, 2004. http://www.nationaldefensemagazine.org/issues/2004/Aug/European_Defense.htm (accessed March 1, 2005).

U.K. House of Commons. Defense Committee. *The Future of NATO*. Seventh Report of Session 2001-02, July 30, 2002. <http://www.parliament.the-stationery-office.co.uk/pa/cm200102/cmselect/cmdfence/cmdfence.htm> (accessed January 6, 2005).

U.K. Ministry of Defense. *Kosovo: Lessons from the Crisis*. 2000. <http://www.kosovo.mod.uk/lessons/chapter2.htm> (accessed October 4, 2004).

U.K Parliament. House of Commons. *Fourteenth Report, Lessons of Kosovo*. Chapters I-III, October 24, 2000. <http://www.parliament.the-stationery-office.co.uk/pa/cm199900/cmselect/cmdfence/347/34702.htm> (accessed September 18, 2004).

U.S. Department of Defense. American Forces Information Service. Quoted in Gerry J. Gilmore, *Rumsfeld: NATO, Like U.S., Needs to Transform Its Military*. September 22, 2002. http://www.defenselink.mil/news/Sep2002/n09222002_200209221.html (accessed January 6, 2005).

U.S. Department of Defense. Defense Security Cooperation Agency. *Defense Trade Security Initiatives*. http://www.dsca.osd.mil/dtsi/DTSI_links.htm (accessed March 1, 2005).

U.S. Department of Defense. News Transcript. *NATO Summit Background Briefing*. June 28, 2004. <http://www.defenselink.mil/transcripts/2004/tr20040628-0946.html> (accessed January 5, 2005).

U.S. Department of the State. Press Statement by Philip T. Reeker, *Defense Trade Security Initiatives*. May 24, 2000. <http://www.fas.org/asmp/campaigns/control/ps000524d.html> (accessed February 12, 2005).

U.S. Department of Defense. Report to Congress. *Kosovo/Operation Allied Force After-Action Report*. January 31, 2000. <http://www.defenselink.mil/pubs/kaar02072000.pdf> (accessed September 30, 2004).

U.S. General Accounting Office. *NATO Progress toward More Mobile and Deployable Forces*. September, 1999. <http://www.gao.gov/archive/1999/ns99229.pdf> (accessed September 24, 2004).

U.S. The White House. *Fact Sheet: Bush Administration Review of Defense Trade Export Policy and National Security*. Office of the Press Secretary, November 21, 2002. <http://www.whitehouse.gov/news/releases/2002/11/20021121-5.html> (accessed March 2, 2005).

U.S. White House Press Release. *NATO: Building new capabilities for new challenges*. Washington D.C., November 21, 2002. <http://www.whitehouse.gov/news/releases/2002/11/20021121-6.html> (accessed January 16, 2005).

U.S. White House Press Release. *NATO: Building New Capabilities for New Challenges*. Washington D.C., November 21, 2002. <http://www.whitehouse.gov/news/releases/2002/11/20021121-6.html> (accessed January 5, 2005).

Vallance, Andrew. *A Radically New Command Structure for NATO*. NATO Review, Istanbul Summit Special. Brussels: NATO Public Diplomacy Division, June 2004. <http://www.nato.int/docu/review/2004/istanbul/2004-istanbul-e.pdf> (accessed January 8, 2005).

Vlascos-Dengler, Katia. *Getting There: Building Strategic Mobility into ESDP*. Paris: European Union Institute for Security Studies, November, 2002. <http://www.iss-eu.org/occasion/occ38.pdf> (accessed October 30, 2004).

Weinrod, Bruce W. "NATO after Prague and Copenhagen." *Mediterranean Quarterly*, (Spring 2003).
http://muse.jhu.edu/journals/mediterranean_quarterly/v014/14.2weinrod.pdf (accessed January 6, 2005).

Wilson, Gordon. *European Force Structures*. Paris: The Institute for Security Studies Western European Union, August 1999). <http://www.iss-eu.org/occasion/occ08.pdf> (accessed January 3, 2005).

Yost, David S. "The U.S.-European Capabilities Gap and the Prospect for ESDP." In *Defending Europe: The EU, NATO and the Quest for European Autonomy*, edited by Jolyon Howorth and John T.S. Keeler. New York: Palgrave Macmillan division of St. Martin's Press, 2003.

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